

DTIC EDITION

(2)

NPS-68-89-001

NAVAL POSTGRADUATE SCHOOL

Monterey, California



DTIC
ELECTED
APR 19 1989
S H D
Cb

HYDROGRAPHIC DATA FROM THE PILOT STUDY OF THE
COASTAL TRANSITION ZONE (CTZ) PROGRAM
17 - 26 March 1987

by

Paul F. Jessen
Steven R. Ramp
Carol A. Clark

January 1989

Approved for public release; distribution unlimited.

Prepared for:

Chief of Naval Research
Arlington, VA 22217

NAVAL POSTGRADUATE SCHOOL

Monterey, California 93943

RADM R. C. Austin
Superintendent

Harrison Shull
Provost

This report is for the research project "Hydrographic Data from the Pilot Study of the Coastal Transition Zone (CTZ) Program" sponsored by the Naval Postgraduate School Research Council under Program Element 61153N. Reproduction of all or part of this report is authorized.

This report was prepared by:

Paul F. Jessen
PAUL F. JESSEN
Oceanographer

Steven R. Ramp
STEVEN R. RAMP
Assistant Professor of Oceanography

Carol A. Clark
CAROL A. CLARK
Computer Programmer

Reviewed by:

Released by:

Curtis A. Collins
CURTIS A. COLLINS
Professor and Chairman
Department of Oceanography

Gordon E. Schacher
GORDON E. SCHACHER
Dean of Science and Engineering

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE

Form Approved
OMB No 0704-0188

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION Unclassified		1b. RESTRICTIVE MARKINGS			
2a. SECURITY CLASSIFICATION AUTHORITY		3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution unlimited.			
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S) NPS-68-89-001		5. MONITORING ORGANIZATION REPORT NUMBER(S)			
6a. NAME OF PERFORMING ORGANIZATION NAVPGSCOL Dept. of Oceanography	6b. OFFICE SYMBOL (If applicable) 68	7a. NAME OF MONITORING ORGANIZATION Chief of Naval Research			
6c. ADDRESS (City, State, and ZIP Code) Monterey, CA 93943-5000		7b. ADDRESS (City, State, and ZIP Code) Arlington, VA 22217			
8a. NAME OF FUNDING/SPONSORING ORGANIZATION NPS Research Council	8b. OFFICE SYMBOL (If applicable) 012	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER N0001487WR4E011			
8c. ADDRESS (City, State, and ZIP Code) Code 012 Naval Postgraduate School Monterey, CA 93943-5000		10. SOURCE OF FUNDING NUMBERS			
		PROGRAM ELEMENT NO 61153N	PROJECT NO. RR014-01	TASK NO. 10P-011	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) "Hydrographic Data from the Pilot Study of the Coastal Transition Zone (CTZ) Program: 17-26 March 1987. (Unclassified)					
12. PERSONAL AUTHOR(S) Jessen, Paul F., Ramp, S.R., Clark, Carol A.					
13a. TYPE OF REPORT Progress	13b. TIME COVERED FROM Oct 86 TO Sept 87	14. DATE OF REPORT (Year, Month, Day) 89-1-30		15. PAGE COUNT	
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number) Hydrographic data, CTD data, mesoscale eddies, cold filaments, Central California Coast.			
19. ABSTRACT (Continue on reverse if necessary and identify by block number) This is a data report which presents hydrographic (CTD) data from a cruise off central California during 17-26 March 1987. The study area was from Pt Reyes, CA to Pt St George, OR from the coast to 150 km offshore. A total of 96 CTD casts to 500 m and 55 XBT drops to 750 m were made. The data are presented as individual vertical profiles, horizontal distributions, and vertical sections. The data were collected as part of the ONR Coastal Transition Zone Program, to study cold filaments, squirts, jets, and mesoscale eddies off the central California coast.					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT <input type="checkbox"/> DTIC USERS		21. ABSTRACT SECURITY CLASSIFICATION Unclassified			
22a. NAME OF RESPONSIBLE INDIVIDUAL Steven R. Ramp		22b. TELEPHONE (Include Area Code) (408) 646-3162		22c. OFFICE SYMBOL 68Ra	

**Hydrographic Data from the Pilot Study of the
Coastal Transition Zone (CTZ) Program:**

17 - 26 March, 1987

by

**Paul F. Jessen
Steven R. Ramp
Carol A. Clark**

**Chief Scientist:
Steven R. Ramp**

TABLE OF CONTENTS

	Page
List of Tables	ii
List of Figures	iii
Introduction	1
Data Acquisition and Calibration	5
Data Processing	13
Data Presentation	13
Acknowledgements	18
References	207
Initial Distribution List	208



Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

LIST OF TABLES

Table	Caption	Page
1.	List of stations occupied during the Coastal Transition Zone (CTZ1) pilot study showing date, time, location, and weather.	6
2.	Differences between salinities calculated using the corrected CTD pressure, temperature, and conductivity readings and those of the water samples at the same depth measured by the Guildline Autosal.	12

LIST OF FIGURES

Figure	Caption	Page
1.	Planned CTD and XBT station locations for the Coastal Transition Zone (CTZ1) pilot study in 1987.	2
2.	Actual CTD station numbers and locations for cruise CTZ1 during March 17-26, 1987 aboard the R/V PT SUR.	3
3.	Actual XBT station numbers and locations for cruise CTZ1 during March 17-26, 1987 aboard the R/V PT SUR.	4
4.	Hourly averages of wind speed and direction measured at 10 m height from the R/V PT SUR during cruise CTZ1.	14
5.	Map of surface temperature during cruise CTZ1, March 17-26, 1987.	15
6.	Map of surface salinity during cruise CTZ1, March 17-26, 1987.	16
7.	Map of the dynamic height (dyn. m) at the sea surface relative to 500 db during cruise CTZ1, March 17-26, 1987.	17
8.	Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 1-12 of module C.	19
9.	Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 12-16 of module C.	22
10.	Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 16-27 of module C.	25
11.	Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 27-30 of module C.	28
12.	Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 41-50 of module B.	31
13.	Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 50-54 of module B.	34

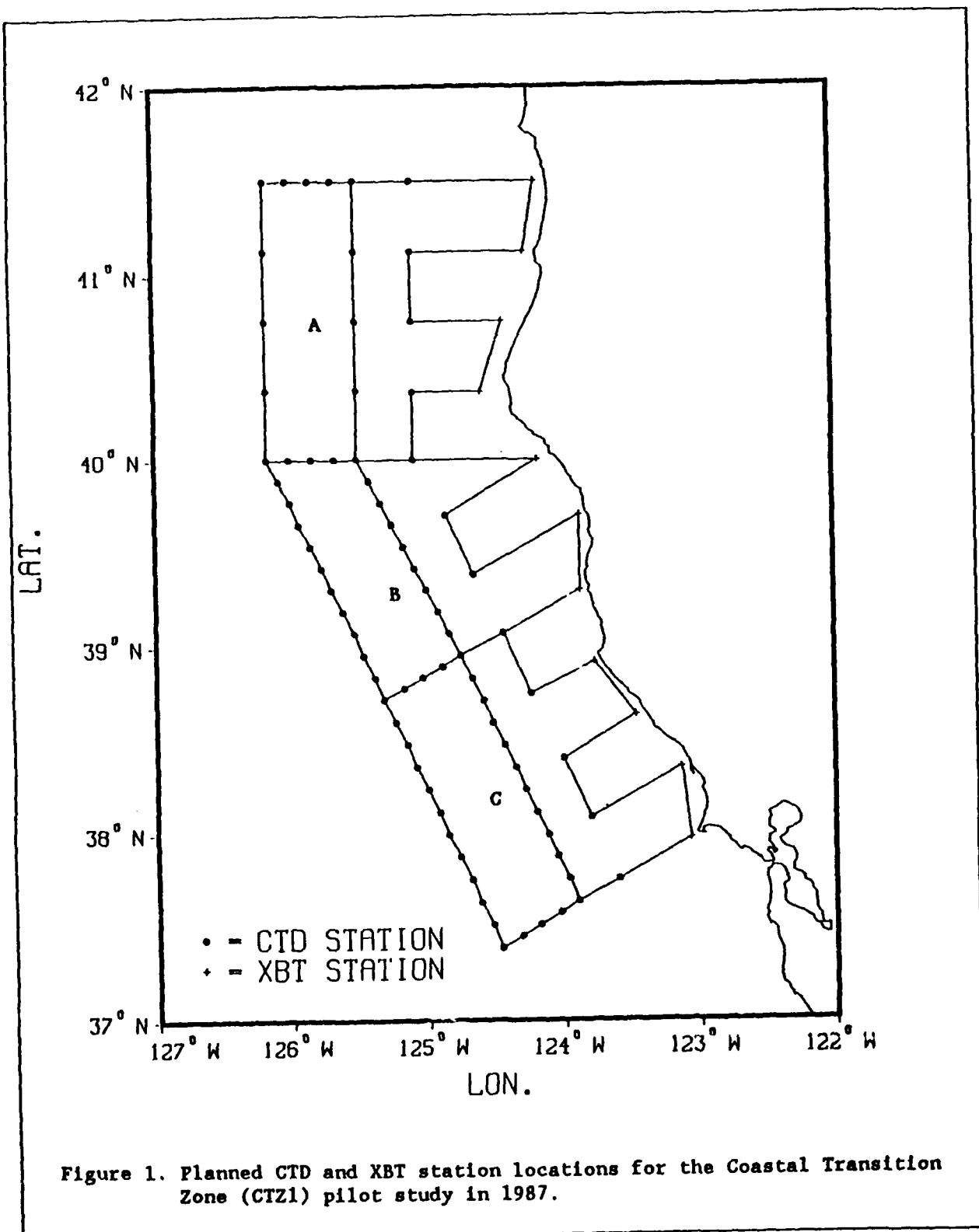
14.	Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 54-65 of module B.	37
15.	Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 65-70 of module B.	40
16.	Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 77-83 of module A.	43
17.	Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 88-86 and 83-85 of module A.	46
18.	Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 88-92 of module A.	49
19.	Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 92-96 of module A.	52
20.	Vertical section of temperature from XBT drops 950-941 and 911-901.	55
21.	Vertical profiles of temperature, salinity, and density anomaly for all CTD stations of cruise CTZ1, with listing of selected data points.	56
22.	Vertical profiles of temperature for all XBT stations of cruise CTZ1, with listing of selected data points.	151

INTRODUCTION

The data included in this report were collected as part of the pilot study for the Office of Naval Research (ONR) Coastal Transition Zone project during March 17-26, 1987. The study area encompassed the region from Pt. Reyes, California to Pt. St. George, Oregon from the coast to 150 km offshore. The planned sampling grid (Fig. 1) consisted of two alongshore sections 150 and 90 km offshore, a discontinuous alongshore section 60 km offshore, and four across shore sections. The across shore sections divided the sampling grid into three separate modules (A, B, and C in Fig. 1) and each module was completed before the next was begun to provide a near synoptic survey within each module. The actual sampling grid (Figs. 2 & 3) differed somewhat from the original due to weather and time constraints. A total of 96 CTD casts to 500 m depth and 55 XBT drops to 750 m were made.

The R/V PT SUR departed from Moss Landing, California on the morning of March 17, 1987 and arrived on station 1 (Fig. 2) at the southeast corner of module C at 0550 UT on March 18. From this point the ship proceeded around module C counterclockwise completing the eastern CTD section (stations 1-12, Fig. 2) followed by the northern (stations 12-16), western (stations 16-24), and southern (stations 27-30) sections. The survey of module C was completed by 2330 UT on March 19. The ship then moved inshore of module C occupying XBT stations 31, 101-112 (Fig. 3) and CTD stations 32, 35, 36, 39, and 40 (Fig. 2) on the way north to module B.

The CTD survey of module B began at 0630 UT on March 21 again at the southeast corner of the module at station 41 (Fig. 2). Following this cast, the ship proceeded north occupying the stations along the eastern edge of module B (stations 41-50, Fig. 2) followed by those along the northern (stations 50-54), western (stations 54-65), and southern (stations 65-69)



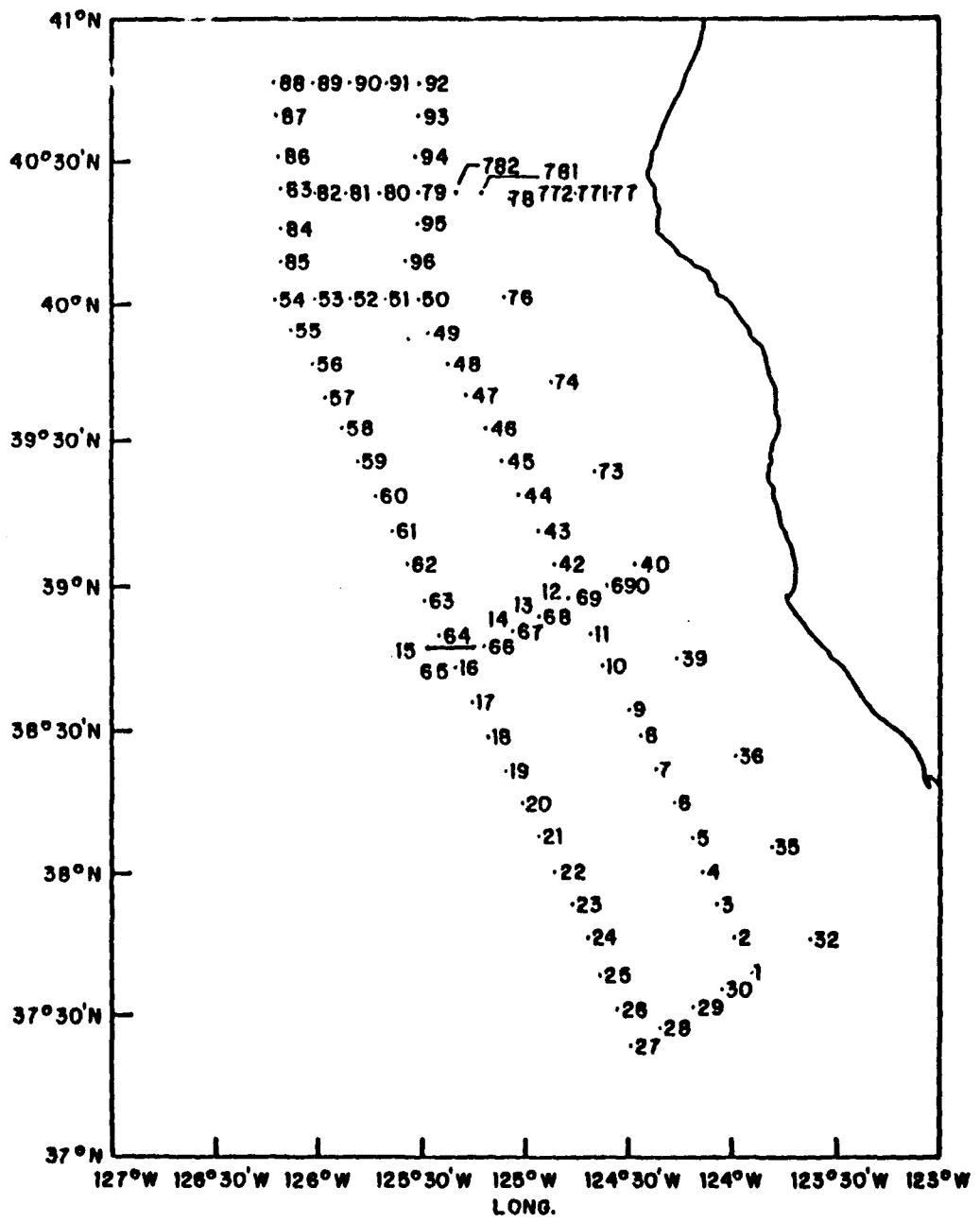
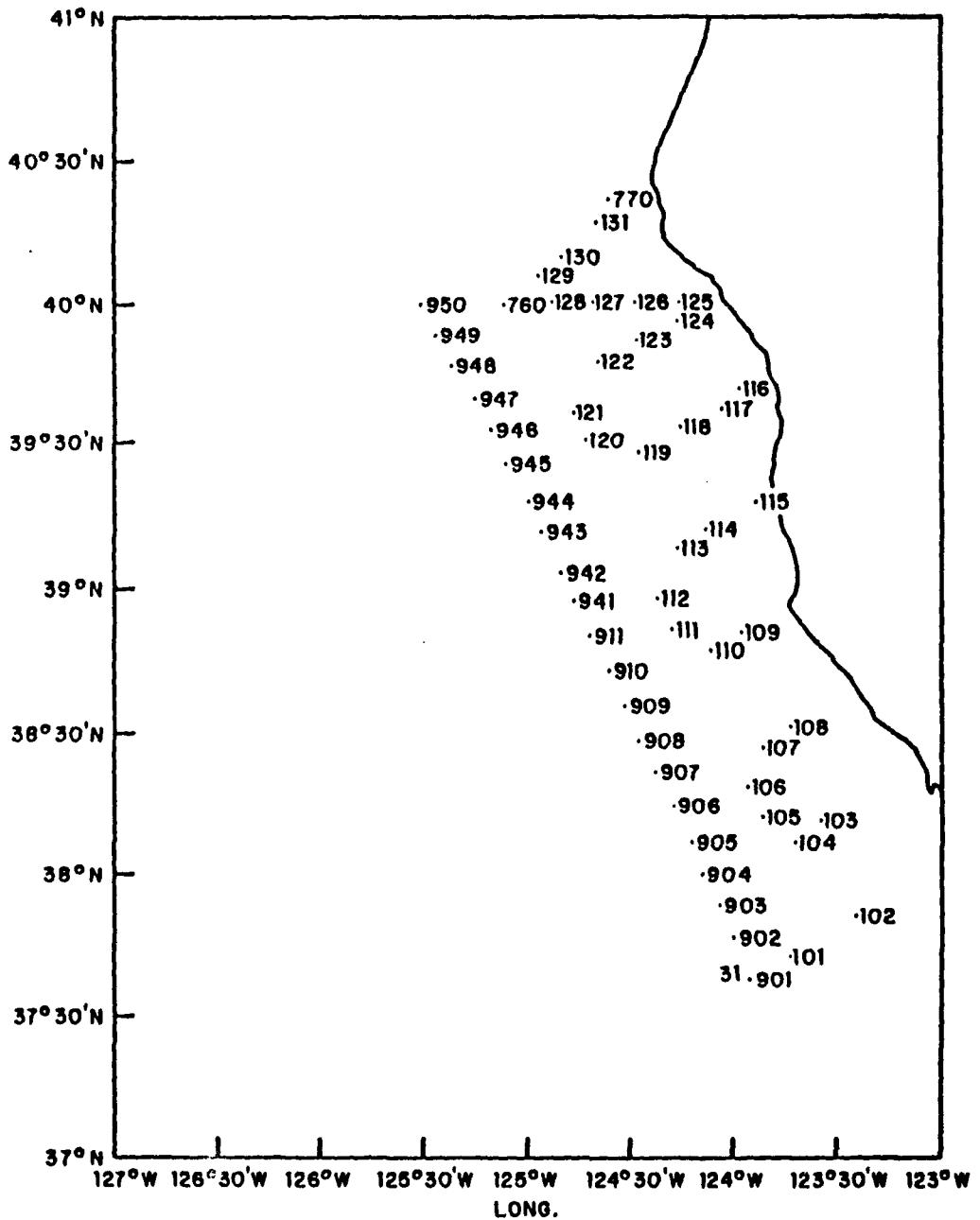


Figure 2. Actual CTD station numbers and locations for cruise CTZ1 during March 17-26, 1987 aboard the R/V PT SUR.



edges. The last CTD cast of module B (station 69, Fig. 2) was completed at 2320 UT on March 22. Following this more inshore CTD casts (stations 690, 70, 73, 74, 76, 77, 771, 772, 78, 781, and 782, Fig. 2) and XBT drops (113 - 128, 760, 129 - 131, and 770, Fig. 3) were made.

Due to time constraints all of the originally planned stations of module A could not be occupied. This module was begun at 1430 UT on March 24 at CTD station 79 (Fig. 2) and was occupied by steaming west across the module and then south completing CTD stations 80-85. The ship then turned back north and occupied stations 86 and 87. Next the northernmost cross shore section (stations 88-92, Fig. 2) was completed. Finally the ship proceeded south, occupied stations 93-96 and finished the last CTD station at 2330 UT on March 25. A section of XBT drops (950 - 901, Fig. 3) was made on the way back south through the center of the study area. A listing of all CTD and XBT stations occupied during the cruise is shown in Table 1.

The personnel on this cruise were; Dr. Steven R. Ramp (NPS), Mr. Jim Stockel (NPS), Mr. Paul Jessen (NPS), Dr. David C. Smith IV (NPS), Mr. Dan Sakoda (NPS), and Ms. Sheryl Fellbaum (NPS).

DATA ACQUISITION AND CALIBRATION

Hydrographic data was acquired using a Neil Brown Mark III-B CTD and Sippican T-4 XBTs. A General Oceanics rosette sampler was attached to the CTD and was equipped with twelve 5 liter Niskin bottles for in-situ water sampling. The CTD sampling rate was 32 Hz, but the acquisition software employed a latch filter which limited the number of data points collected during each cast to 4308. On the 500 m casts this resulted in the acquisition of 8 or 9 data points per meter of water. CTD data was acquired only on the downcast with a winch speed of approximately 30 m/min to 150 m then 60 m/min to 500 m. The data were acquired using an HP200 computer and stored on

Table 1. List of stations occupied during the Coastal Transition Zone (CTZ1) pilot study, showing date, time, type, location, and weather.

Date	Time (UT)	Stn No.	Type	Latitude	Longitude	Wind Dir	Spd(m/s)	Air (°C)	Dew pt. (°C)
March 18	0550	1	CTD	37 37.9	123 54.3	010	7.8	11.18	10.20
	0723	2	CTD	37 45.7	123 58.0	336	10.2	11.36	7.16
	0857	3	CTD	37 52.9	124 3.7	321	9.5	11.70	5.50
	1019	4	CTD	37 59.2	124 8.0	328	10.7	11.26	5.77
	1142	5	CTD	38 6.9	124 10.1	307	9.3	10.67	4.71
	1319	6	CTD	38 14.5	124 16.5	292	12.0	10.56	5.47
	1449	7	CTD	38 21.4	124 21.8	336	10.6	10.98	5.32
	1617	8	CTD	38 28.9	124 25.5	294	9.9	12.44	4.12
	1751	9	CTD	38 34.0	124 28.7	315	11.9	11.81	3.14
	1922	10	CTD	38 43.0	124 36.9	020	5.8	11.52	3.86
	2046	11	CTD	38 50.1	124 39.4	329	7.4	10.27	4.76
	2209	12	CTD	38 57.4	124 44.0	307	7.8	9.35	4.41
	2324	13	CTD	38 53.2	124 53.6	333	8.1	12.17	4.45
March 19	0038	14	CTD	38 50.4	125 1.1	293	10.1	11.19	3.16
	0152	15	CTD	38 47.0	125 9.6	309	8.8	10.04	3.17
	0313	16	CTD	38 43.0	125 19.1	319	10.4	10.87	2.46
	0436	17	CTD	38 35.6	125 14.4	315	10.1	9.51	3.57
	0612	18	CTD	38 28.5	125 9.8	305	11.2	9.69	3.31
	0735	19	CTD	38 21.2	125 5.1	297	11.4	9.51	2.45
	0856	20	CTD	38 14.3	124 59.9	301	11.0	10.09	3.75
	1012	21	CTD	38 7.4	124 55.5	237	9.7	8.99	4.85
	1138	22	CTD	37 59.6	124 50.2	331	11.2	10.86	2.56
	1305	23	CTD	37 52.1	124 45.7	360	10.2	8.93	3.99
	1425	24	CTD	37 45.5	124 41.0	192	13.6	10.23	3.84
	1555	25	CTD	37 37.3	124 37.5	349	14.3	10.34	4.78
	1719	26	CTD	37 30.7	124 31.8	354	12.0	11.19	3.01
	1854	27	CTD	37 23.0	124 28.1	342	10.3	10.97	3.21
	2018	28	CTD	37 26.7	124 20.0	320	11.4	11.13	2.94
	2143	29	CTD	37 31.0	124 10.2	324	12.9	11.00	3.36
	2259	30	CTD	37 34.6	124 2.1	308	12.7	12.55	3.88
March 20	0028	31	XBT	37 38.3	123 53.2	316	12.3	11.61	3.85
	0300	101	XBT	37 42.1	123 43.5			11.1	3.7
	0415	32	CTD	37 45.2	123 36.5	336	12.4	10.35	4.46
	0615	102	XBT	37 50.7	123 24.2			10.0	4.8
	1328	103	XBT	38 11.0	123 34.8			9.6	4.1
	1406	104	XBT	38 7.4	123 41.8			9.5	4.5
	1450	35	CTD	38 5.0	123 48.2	006	7.2	9.56	3.99
	1606	105	XBT	38 11.6	123 51.3			10.2	3.6
	1653	106	XBT	38 18.3	123 55.3			10.2	3.0
	1740	36	CTD	38 24.6	123 58.5	319	2.6	9.93	2.84
	1848	107	XBT	38 27.6	123 51.2	086	0.7	9.42	4.52
	1932	108	XBT	38 30.9	123 43.4			9.3	3.5
March 21	0005	109	XBT	38 50.5	123 57.7			10.2	4.6
	0048	110	XBT	38 47.7	124 6.2			8.4	3.8
	0130	39	CTD	38 45.0	124 14.0	183	12.4	8.59	3.74
	0242	111	XBT	38 51.2	124 17.5			8.2	4.9
	0325	112	XBT	38 57.7	124 21.3			9.0	5.8
	0410	40	CTD	39 4.0	124 25.9	164	12.8	8.86	5.88

Table 1. (continued)

Date	Time (UT)	Stn No.	Type	Latitude	Longitude	Wind Dir	Spd(m/s)	Air (°C)	Dew pt. (°C)
March 22	0634	41	CTD	38 56.9	124 45.1	303	8.2	8.89	2.72
	0752	42	CTD	39 4.0	124 49.4	298	9.9	9.58	1.30
	0913	43	CTD	39 11.1	124 54.5	306	9.4	9.26	3.09
	1036	44	CTD	39 18.2	124 59.4	293	9.7	9.12	2.53
	1158	45	CTD	39 25.3	125 4.3	263	8.8	8.76	3.13
	1326	46	CTD	39 32.2	125 9.2	269	9.2	7.32	3.78
	1502	47	CTD	39 39.8	125 14.4	308	11.2	8.42	3.67
	1715	48	CTD	39 46.7	125 19.8	293	11.7	8.46	3.69
	1836	49	CTD	39 52.9	125 25.1	286	11.5	10.00	4.57
	2008	50	CTD	40 0.3	125 28.7	286	13.3	10.16	3.63
	2142	51	CTD	40 0.4	125 38.7	327	3.9	8.55	3.97
	2308	52	CTD	40 0.4	125 48.7	295	7.6	9.96	4.71
	0032	53	CTD	40 0.4	125 58.8	338	7.1	10.31	4.98
	0225	54	CTD	40 0.0	126 10.2	007	13.0	11.35	5.02
	0346	55	CTD	39 53.4	126 5.4	174	9.1	9.96	5.74
	0509	56	CTD	39 46.4	125 59.6	079	10.7	10.00	4.99
	0629	57	CTD	39 39.0	125 56.0	062	4.8	9.83	5.45
	0802	58	CTD	39 32.6	125 51.0	032	5.6	9.75	4.98
	0940	59	CTD	39 25.3	125 46.4	001	5.9	9.71	5.00
	1111	60	CTD	39 18.1	125 42.1	347	5.5	9.88	5.07
	1301	61	CTD	39 11.0	125 37.1	014	3.6	9.82	4.84
	1422	62	CTD	39 3.9	125 32.8	324	3.8	9.92	4.26
	1544	63	CTD	38 57.0	125 28.1	346	2.9	10.28	4.45
	1700	64	CTD	38 49.7	125 23.4	202	1.3	10.25	5.27
	1818	65	CTD	38 43.5	125 17.9	211	3.0	10.49	4.55
	1926	66	CTD	38 47.0	125 10.4	224	3.8	10.62	4.88
	2038	67	CTD	38 50.3	125 1.0	195	5.4	10.62	5.04
	2146	68	CTD	38 53.5	124 53.5	186	4.3	10.55	4.99
	2256	69	CTD	38 56.9	124 44.9	200	5.3	10.59	4.96
March 23	0008	690	CTD	39 0.1	124 35.4	203	7.0	10.45	4.52
	0127	70	CTD	39 4.1	124 25.5	115	6.5	10.03	5.62
	0241	113	XBT	39 8.2	124 15.6			9.7	6.5
	0330	114	XBT	39 11.7	124 7.6			10.0	5.9
	0448	115	XBT	39 17.6	123 52.8			9.4	5.9
	0753	116	XBT						
	0818	117	XBT	39 37.9	124 2.9			8.4	7.2
	0930	118	XBT	39 32.9	124 15.2			10.2	9.3
	1048	119	XBT	39 27.4	124 26.8			12.6	4.0
	1205	73	CTD	39 23.1	124 38.2	003	13.5	11.87	4.14
	1341	120	XBT	39 30.1	124 42.1			11.4	3.8
	1456	121	XBT	39 36.1	124 46.2	330	15.3	11.93	3.60
	1615	74	CTD	39 42.4	124 50.6	346	13.4	11.05	3.86
March 24	1807	122	XBT	39 47.2	124 38.7	337	10.5	11.2	1.8
	1918	123	XBT	39 51.8	124 27.5			12.5	4.2
	2030	124	XBT	39 56.9	124 15.8			11.3	4.3
	2153	125	XBT	40 0.4	124 15.9			11.7	3.8
	2300	126	XBT	40 0.3	124 28.0			12.7	4.1
	0006	127	XBT	40 0.4	124 40.1			12.6	4.1
	0111	128	XBT	40 0.3	124 52.1			12.1	5.2

Table 1. (continued)

Date	Time (UT)	Stn No.	Type	Latitude	Longitude	Wind Dir	Spd(m/s)	Air (°C)	Dew pt. (°C)
March 25	0220	76	CTD	40 0.3	125 4.2	354	11.4	11.39	4.39
	0248	760	XBT	39 59.9	125 5.6			11.4	4.4
	0348	129	XBT	40 5.7	124 56.0			10.1	5.3
	0436	130	XBT	40 9.8	124 49.3			10.1	5.7
	0542	131	XBT	40 8.3	124 38.9	344	13.4	10.29	4.49
	0611	770	XBT	40 21.8	124 34.6			10.9	4.6
	0639	77	CTD	40 22.4	124 34.5	350	10.8	10.01	4.78
	0804	771	CTD	40 22.5	124 43.5	350	11.3	10.70	4.36
	0932	772	CTD	40 22.4	124 53.8	359	12.0	10.73	4.16
	1042	78	CTD	40 22.4	125 3.7	357	9.9	10.51	4.05
	1206	781	CTD	40 22.9	125 12.5	003	12.9	10.42	4.56
	1315	782	CTD	40 23.0	125 20.8	358	11.1	11.24	5.44
	1423	79	CTD	40 23.0	125 28.9	350	10.6	11.18	4.55
	1543	80	CTD	40 22.8	125 39.9	003	11.1	11.08	4.45
	1700	81	CTD	40 22.5	125 50.1	348	13.5	11.19	4.39
	1819	82	CTD	40 23.0	125 59.5	011	10.1	11.42	4.75
	1935	83	CTD	40 23.5	126 8.6	357	10.2	12.15	4.77
	2044	84	CTD	40 15.6	126 8.5	354	10.9	10.91	4.73
	2158	85	CTD	40 8.4	126 8.6	350	11.4	11.25	5.04
	0109	86	CTD	40 30.5	126 8.8	334	12.1	11.38	4.76
	0244	87	CTD	40 38.5	126 9.7	347	11.1	10.93	4.24
	0407	88	CTD	40 45.1	126 10.2	347	11.7	10.22	4.93
	0533	89	CTD	40 45.4	125 59.7	341	12.3	9.91	4.72
	0700	90	CTD	40 45.6	125 48.3	331	12.0	10.39	5.43
	0832	91	CTD	40 45.6	125 38.3	348	12.6	10.66	5.01
	0958	92	CTD	40 45.6	125 28.4	358	12.3	10.44	6.09
	1114	93	CTD	40 38.5	125 28.3	350	11.9	9.93	5.87
	1233	94	CTD	40 30.5	125 28.7	003	10.9	10.16	6.34
	1352	791	CTD	40 22.9	125 28.5	356	10.4	9.94	6.15
	1511	95	CTD	40 16.5	125 29.1	349	11.6	10.61	5.74
	1623	96	CTD	40 8.4	125 32.3	347	13.1	10.65	5.88
	1748	950	XBT	39 59.9	125 28.2			10.5	7.0
	1830	949	XBT	39 53.2	125 24.7			11.5	6.9
	1911	948	XBT	39 46.3	125 19.6			11.7	7.3
	2000	947	XBT	39 39.1	125 13.5			12.3	7.1
	2041	946	XBT	39 32.5	125 8.6			12.3	7.5
	2123	945	XBT	39 25.2	125 4.5			11.6	7.9
	2211	944	XBT	39 17.3	124 58.4			12.3	7.9
	2253	943	XBT	39 11.2	124 53.8			12.5	7.9
	2341	942	XBT	39 3.2	124 47.9			12.6	8.4
March 26	0023	941	XBT	38 57.1	124 44.8			13.2	8.2
	0106	911	XBT	38 49.8	124 40.3			13.5	8.2
	0153	910	XBT	38 43.1	124 35.1			13.5	8.4
	0236	909	XBT	38 35.9	124 30.2			12.6	8.2
	0330	908	XBT	38 28.2	124 25.7			12.9	7.2
	0411	907	XBT	38 21.6	124 20.8			12.1	7.4
	0453	906	XBT	38 14.5	124 15.6			12.3	7.5
	0541	905	XBT	38 6.6	124 10.8			12.0	8.2
	0623	904	XBT	38 0.0	124 7.0			12.7	8.5

Table 1. (continued)

Date	Time (UT)	Stn No.	Type	Latitude	Longitude	Wind Dir Spd(m/s)	Air (°C)	Dew pt. (°C)
0706	903	XBT	37 53.1	124 2.3			12.1	9.0
0748	902	XBT	37 46.4	123 58.3			12.4	9.6
0841	901	XBT	37 38.3	123 52.8			12.5	9.5

3.5 inch diskettes. Upon return the data were transferred to 9 track tape and then processed on an IBM 3033 mainframe computer.

In addition to the CTD and XBT data, an underway data acquisition loop recorded 30 second averages of sea surface temperature and salinity, sea surface skin temperature, wind speed and direction, air temperature, and dew point temperature. The sensors used to acquire this data included Seabird temperature and conductivity sensors for the sea surface temperature and salinity, a Rosemount 100 ohm platinum resistance thermometer for the sea surface skin temperature, a Young anemometer for the wind speed and direction, and a General Eastern dewpoint sensor for the air and dewpoint temperatures. The underway data was acquired on an HP9816 computer and recorded on 3.5 inch diskettes. Like the CTD data, the underway data were transferred to 9 track tape upon return and processed on the IBM mainframe.

The temperature, conductivity, and pressure sensors on the CTD and the temperature and conductivity sensors of the underway sampling system were calibrated shortly before the cruise. The pressure calibration was carried out using a Chandler Engineering dead weight tester as a standard. At 10 equally spaced pressures from 50 to 500 db indicated pressures from the standard and the CTD sensor were recorded. The differences between recorded values were within the stated accuracy of the sensor (+/- 1.6 db) so no pressure correction was applied.

The temperature calibration was done using a Seabird temperature sensor as a standard. This standard sensor is recalibrated by the manufacturer approximately every six months. A temperature bath of 70 - 80 liters of fresh water in an insulated tub was used to compare the standard and sample sensors at 1°C increments from 0 - 20°C. 30 data points were collected at each temperature and averaged to yield a single value at each temperature for each

sensor. Regression analysis was then used to calculate the calibration coefficients for each sample sensor. The correction for the CTD sensor was linear with coefficients of 0.998543 (slope) and 0.047536 (intercept). The best correction for the underway temperature sensor was a second degree polynomial fit with coefficients of 0.022502, 0.998798, and 0.000186.

The conductivity calibration was carried out using a Guildline Model 8400 Autosal as a standard. A constant conductivity bath was used to compare the standard and sample sensor conductivities at five different conductivity levels. 10 samples were taken at each conductivity level and averaged to yield a single value for each sensor at each conductivity level. Regression analysis was run comparing the sample sensor conductivities (CTD and underway) with the standard sensor conductivities (Autosal). A linear correction was found for the CTD sensor with coefficients of 1.023828 (slope) and 0.005897 (intercept). The best fit for the underway conductivity sensor was a second degree polynomial correction with coefficients of -0.195354, 1.03073, and -0.000183.

A total of 61 water samples were taken at 8 CTD stations for post cruise calibration. The CTD pressure, conductivity and temperature were noted as each sample was taken. These numbers, after applying the pre-cruise calibration coefficients, were used to calculate salinity and the results compared with the water sample salinities calculated using the Guildline Model 8400 Autosal in the laboratory. In order to avoid erroneous comparisons due to ship roll in areas of high vertical salinity gradients, samples were eliminated from consideration if the salinity within 2 meters of the nominal sample depth changed more than 0.01 PSU. The number of comparable points was reduced to 35 by this constraint. The differences between Autosal calculated salinities and those from the CTD are listed in Table 2. The mean difference

Table 2. Differences between salinities calculated using the corrected CTD pressure, temperature, and conductivity readings and those of the water samples at the same depth measured by the Guildline Autosal.

STA	Z	CTD SAL	SAMPLE SAL	DIFFERENCE
2	502	34.186	34.185	0.001
	349	34.081	34.084	-0.001
	25	33.161	33.153	0.008
	4	32.994	32.997	-0.003
17	501	34.138	34.140	-0.002
	200	33.948	33.955	-0.007
	25	32.787	32.789	-0.002
	3	32.792	32.791	0.001
32	493	34.915	34.209	-0.014
	350	34.080	34.086	-0.006
	25	32.884	32.883	0.001
	2	32.882	32.882	0.000
50	201	33.964	33.976	-0.012
	49	32.673	32.671	0.002
	25	32.667	32.669	-0.002
	4	32.669	32.672	-0.003
67	505	34.134	34.138	-0.004
	45	32.835	32.839	-0.004
	24	32.831	32.835	-0.004
	2	32.844	32.840	0.004
84	498	34.104	34.105	-0.001
	347	33.997	33.999	-0.002
	200	33.907	33.908	-0.001
	149	33.745	33.744	0.001
	50	32.629	32.630	-0.001
	2	32.625	32.626	-0.001
90	493	34.102	34.108	-0.006
	352	33.995	33.996	-0.001
	50	32.643	32.640	0.003
	4	32.636	32.634	0.002
96	506	34.080	34.084	-0.004
	203	33.878	33.880	-0.002
	49	32.732	32.734	-0.002
	4	32.725	32.724	0.001

was less than 0.002 with a range of -0.014 to 0.008. No further adjustments were made to the CTD conductivities.

DATA PROCESSING

After the raw CTD data was transferred to the IBM 3033 mainframe computer at the Naval Postgraduate School, temperature and conductivity corrections were applied to produce profiles of corrected pressure, temperature, and conductivity. Salinity was calculated from these corrected values according to the algorithm of Lewis and Perkin (1981). Severe spiking due to system malfunctions was eliminated from the salinity signal with a search for vertical salinity gradients greater than 1.0 PSU/m. Points that were determined to be bad were replaced using linear interpolation. Time lag spikes were eliminated by discarding salinity data in regions where the vertical temperature gradient exceeded 0.2° C/m and replacing the discarded data with linearly interpolated values. Finally the data were averaged within 1 m intervals and visually examined for any remaining outliers missed during processing. If found, these points were replaced with linearly interpolated values.

DATA PRESENTATION

The originally planned station positions and cruise track are shown in Fig. 1. The actual CTD station numbers and positions, and XBT station numbers and positions are shown in Figs. 2 and 3 respectively. A map of hourly averaged wind vectors during the cruise is presented in Fig. 4.

Hydrographic data are presented in the form of horizontal maps, vertical sections, and profiles.

Maps of surface temperature, salinity, and dynamic height relative to 500 db are presented in Fig. 5-7 respectively. The surface temperature and salinity data are from the continuous underway system and not from the CTD or

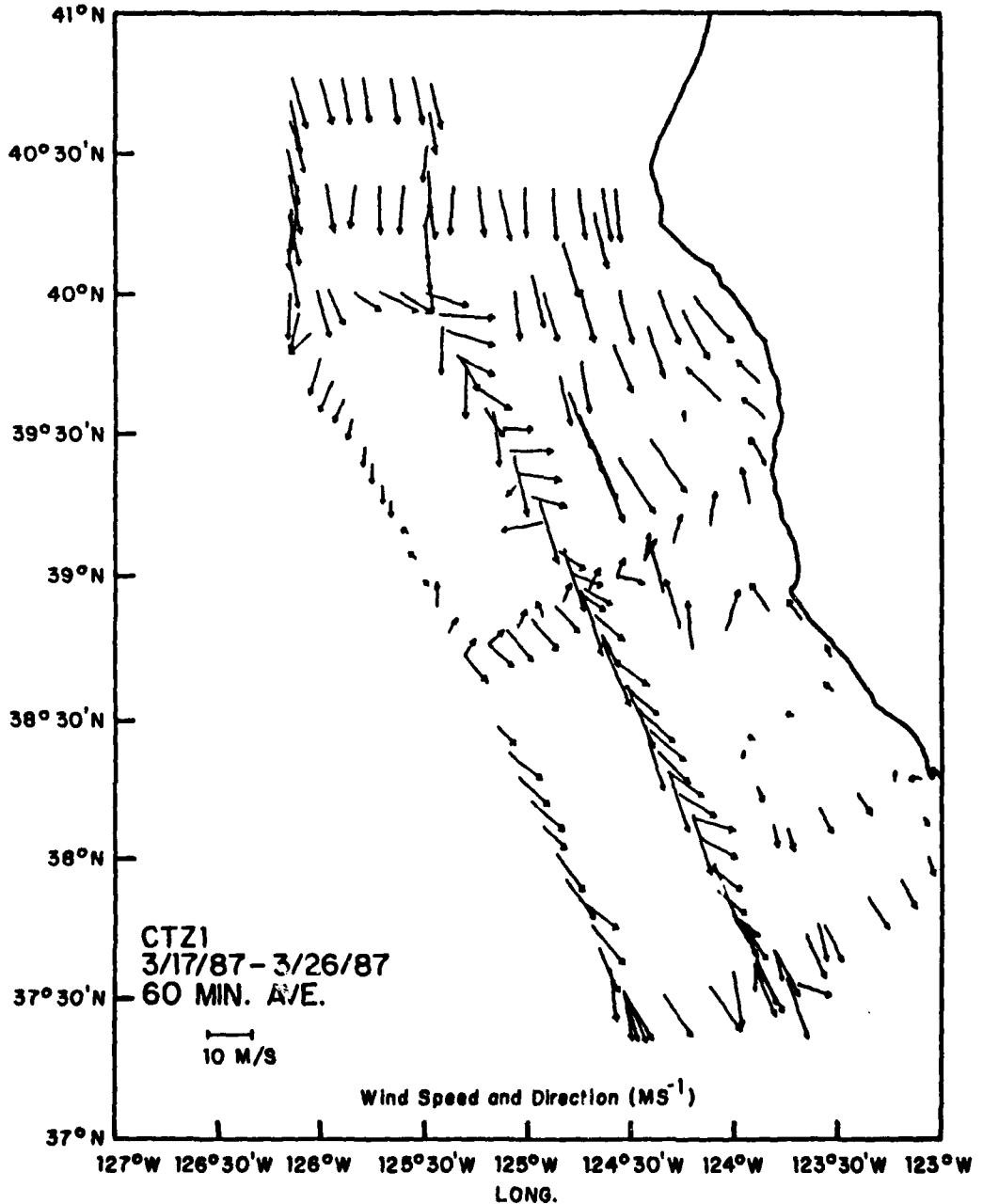


Figure 4. Hourly average of wind speed and direction measured at 10 m height from the R/V PT SUR during cruise CTZ1.

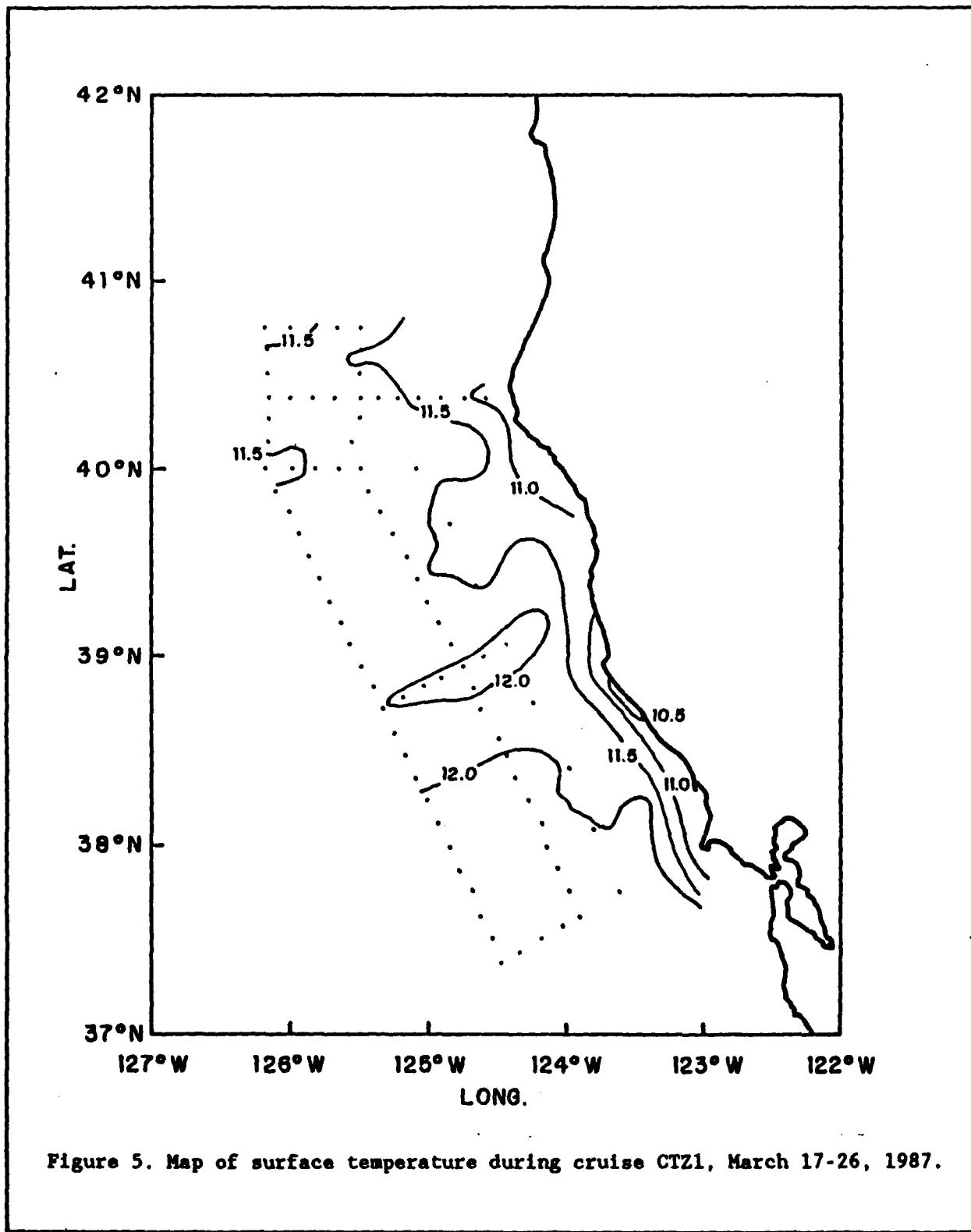


Figure 5. Map of surface temperature during cruise CTZ1, March 17-26, 1987.

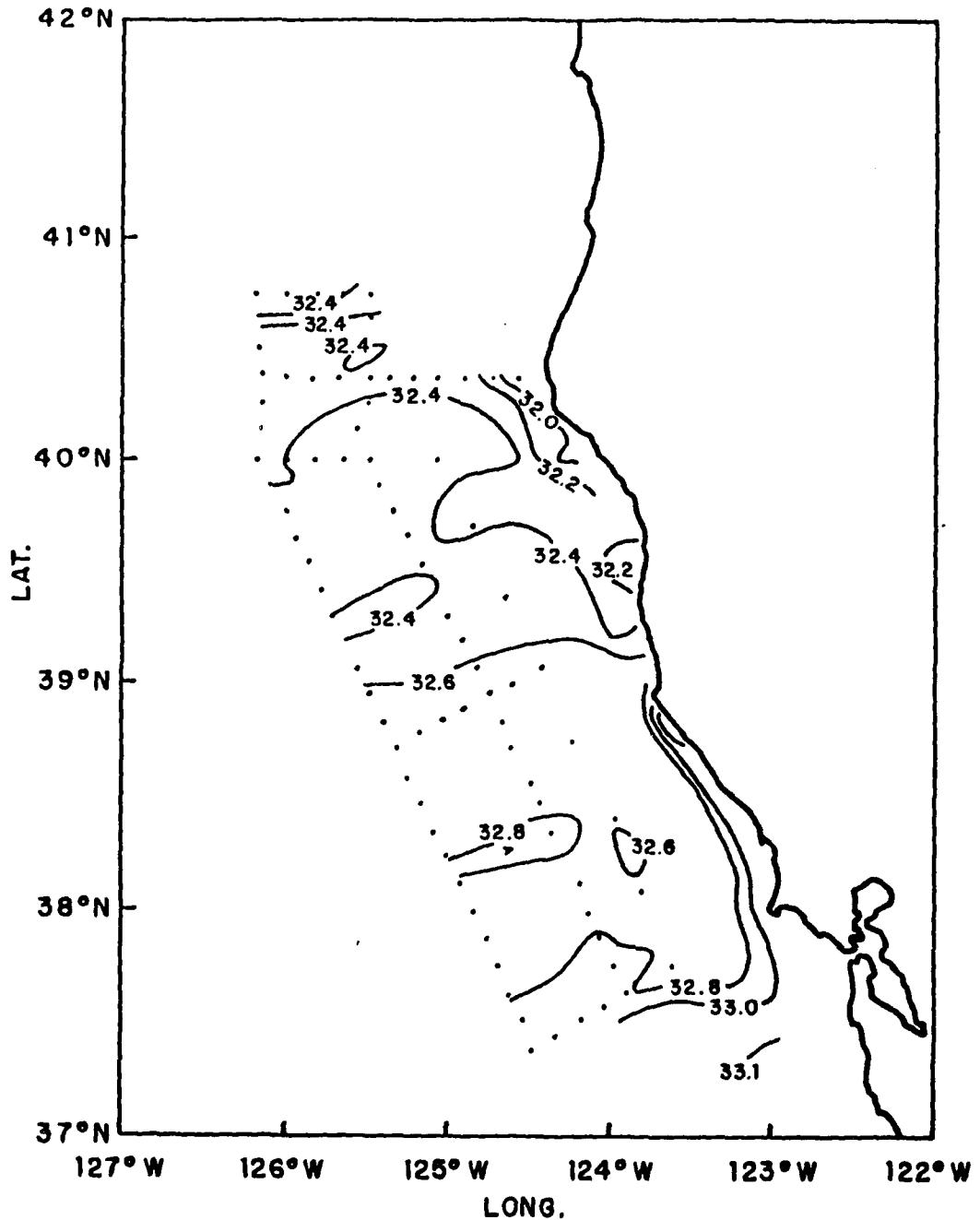


Figure 6. Map of surface salinity during cruise CT21, March 17-26, 1987.

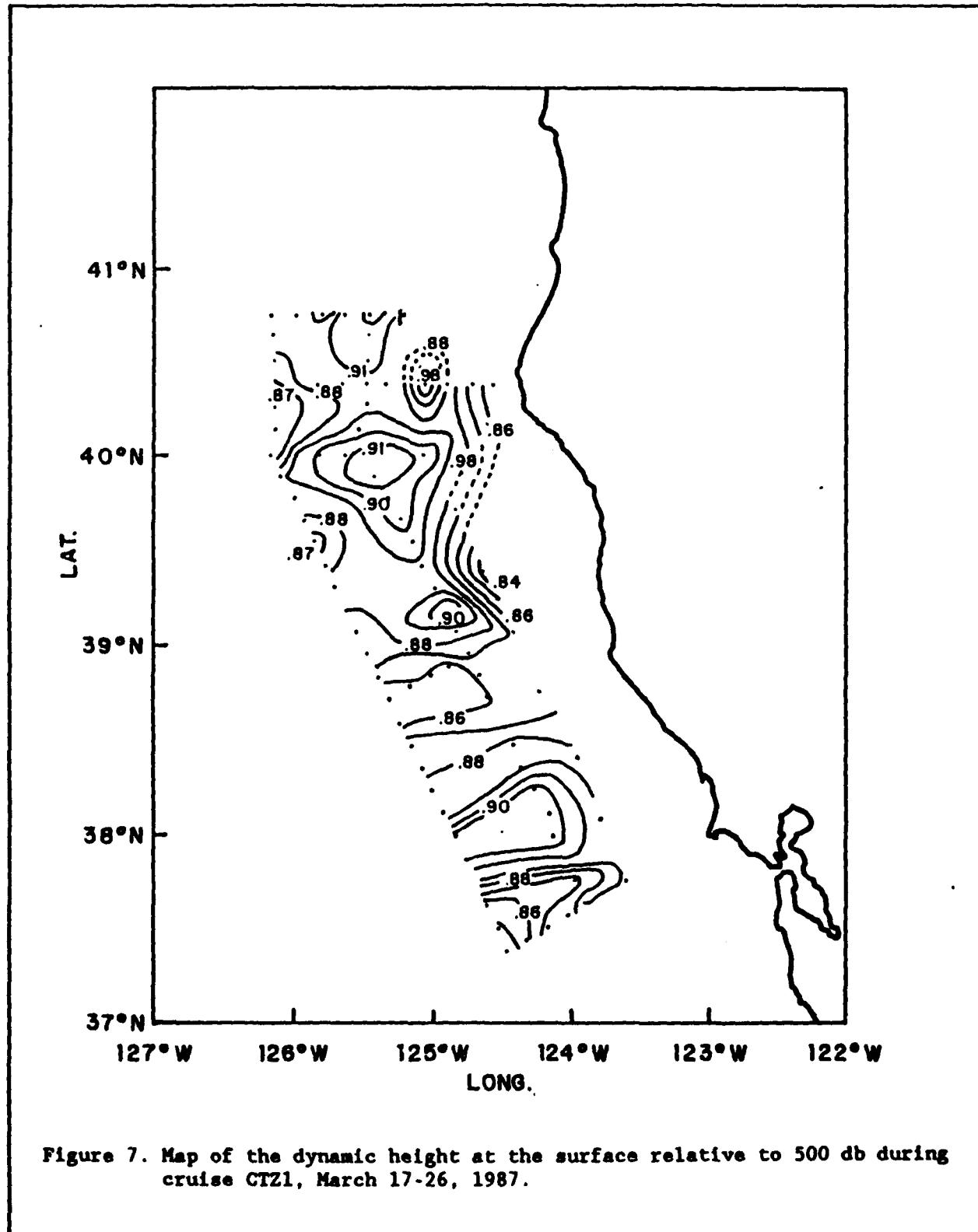


Figure 7. Map of the dynamic height at the surface relative to 500 db during cruise CTZ1, March 17-26, 1987.

XBT data.

Vertical sections of temperature, salinity, and the density anomaly at atmospheric pressure (UNESCO, 1987) from the CTD data are shown in Figs. 8-19. Sections from module A are shown in Figs. 8-11, module B in Figs. 12-15, and module C in Figs. 16-19. Fig. 20 is a vertical section of temperature from the XBT drops made through the middle of the study area on the return trip.

Selected data from each CTD cast is presented along with a vertical profile of temperature, salinity, and density anomaly in Fig. 21. Fig. 22 presents the XBT data in the same form. In these two figures an asterisk next to a point in the data listing indicates that the point is an interpolated value.

ACKNOWLEDGEMENTS

The station plan shown in Figure 1 was designed and provided to the Naval Postgraduate School by Mike Kosro and Jane Huyer of Oregon State University. This work was supported by the Office of Naval Research and the Naval Postgraduate School Research Foundation.

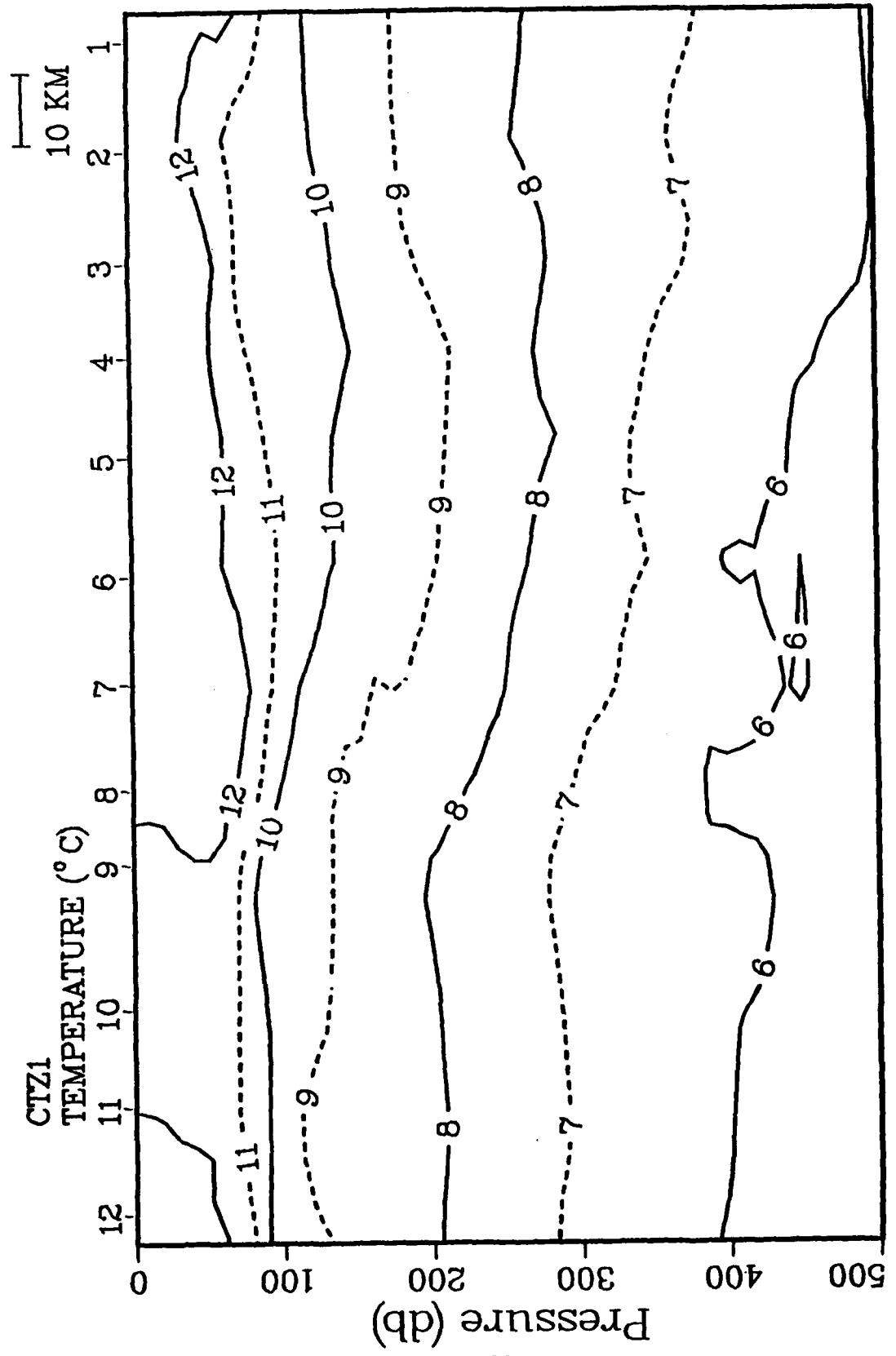


Figure 8. Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 1-12 of module C.

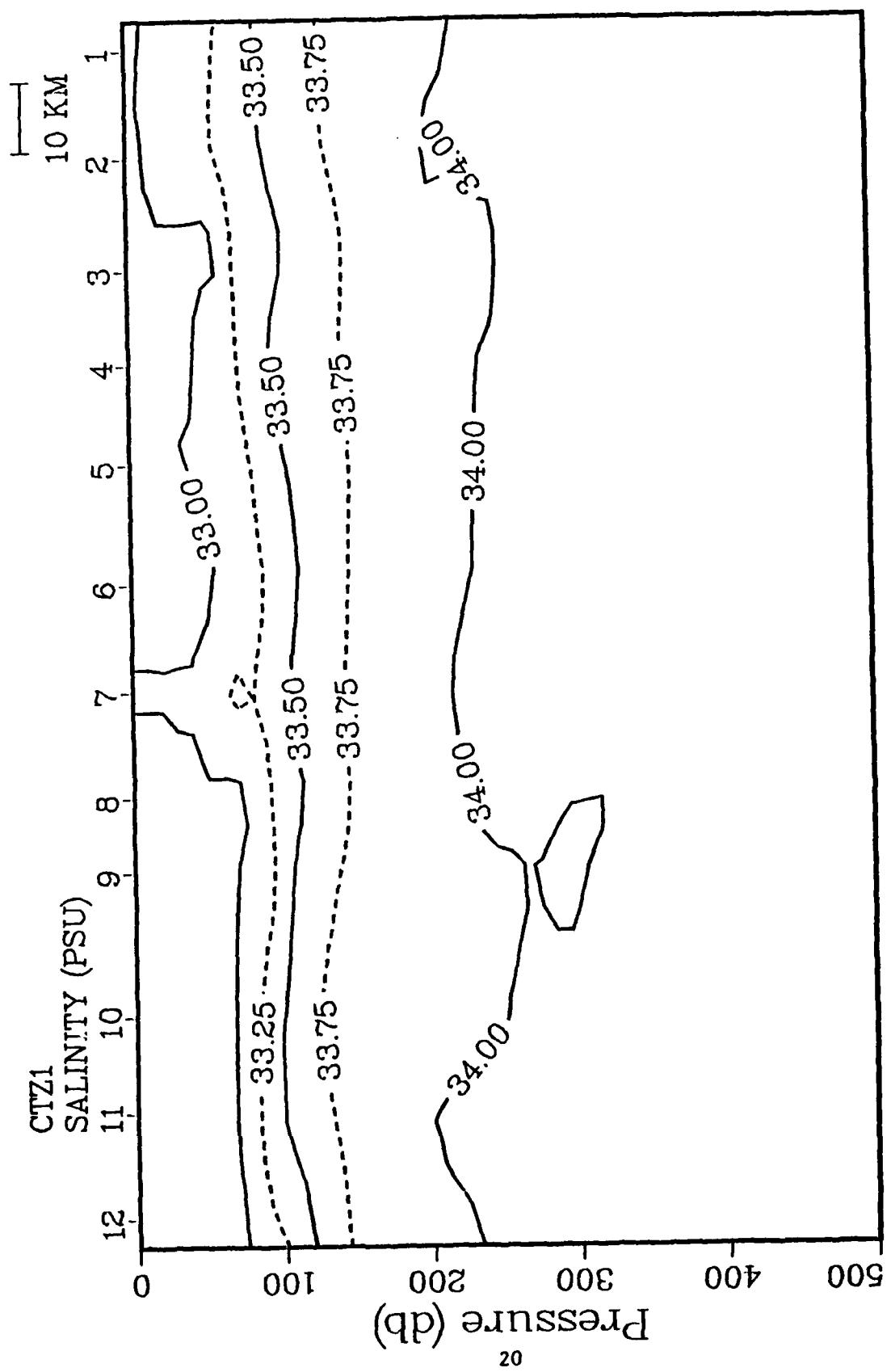


Figure 8b.

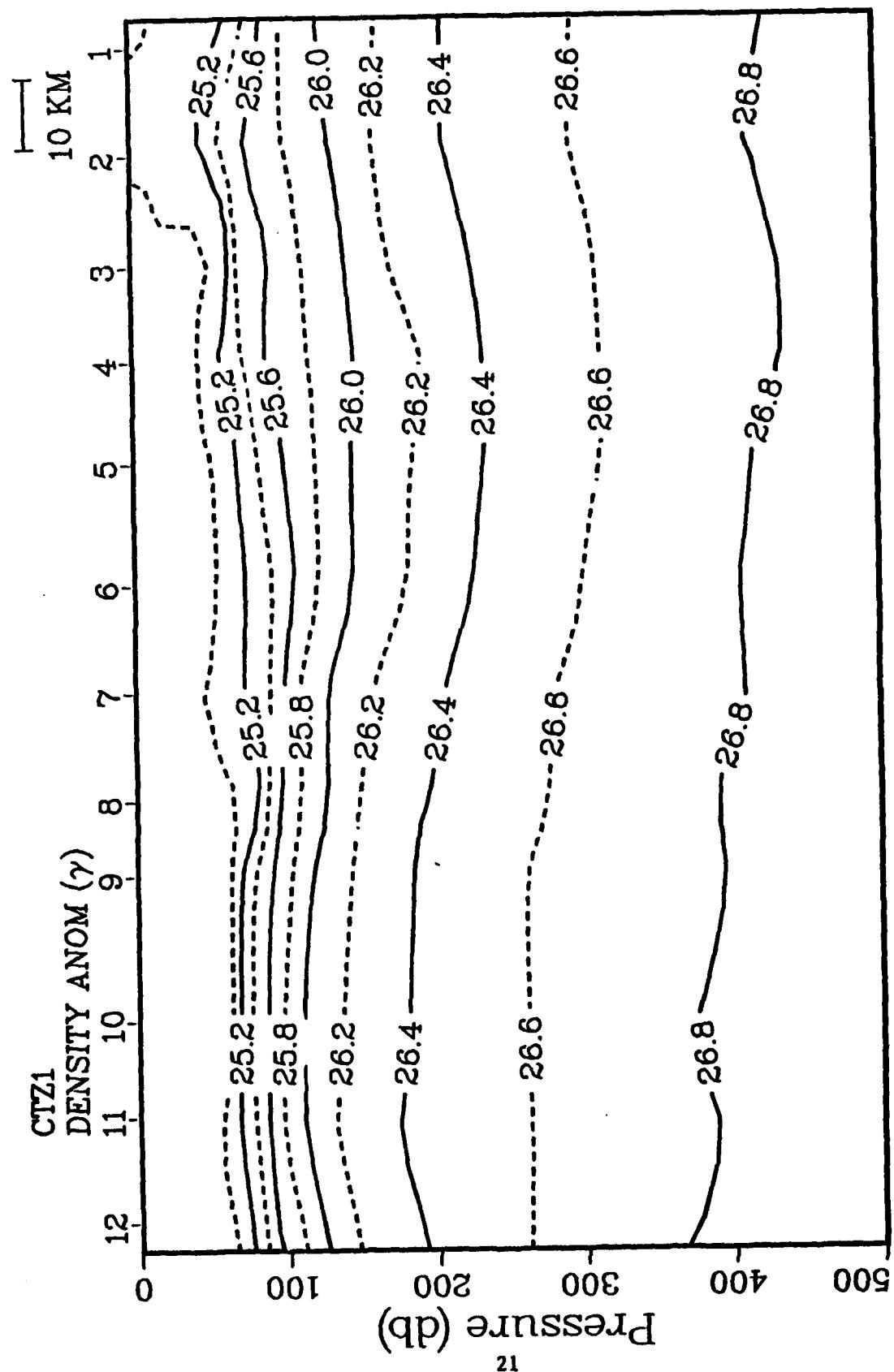


Figure 8c.

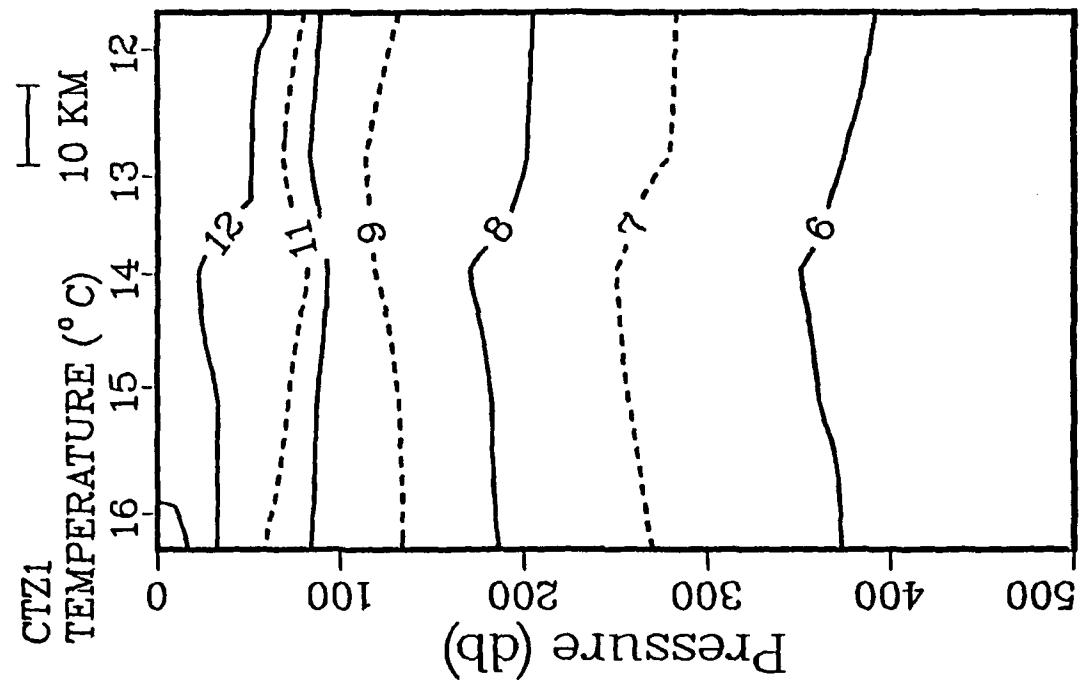


Figure 9. Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 12-16 of module C.

Figure 9b.

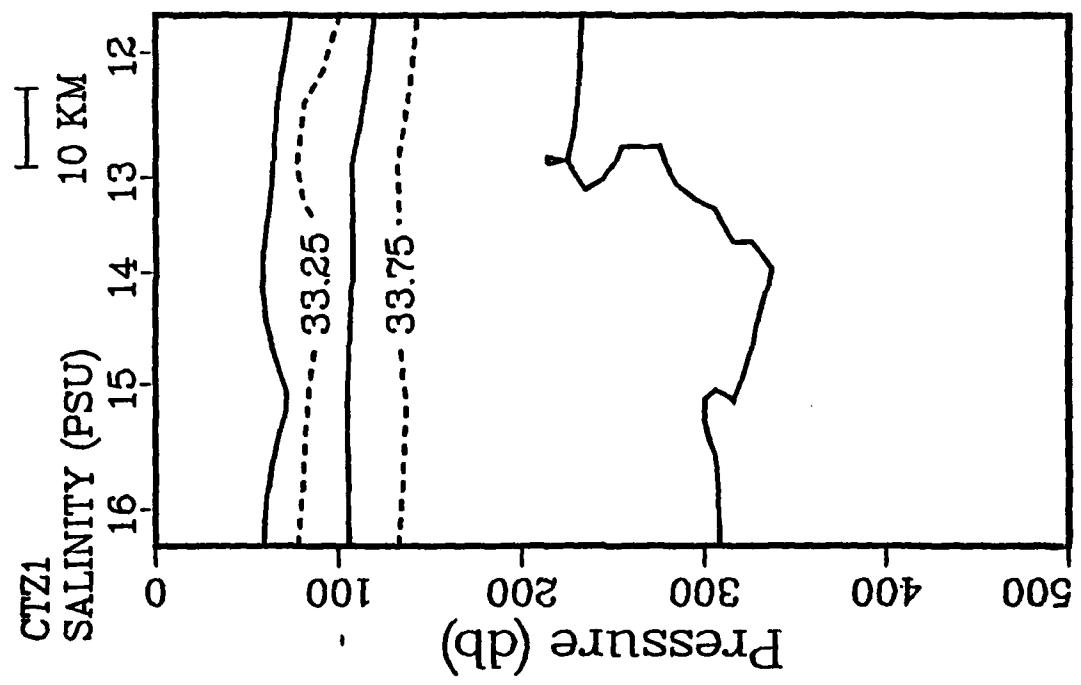
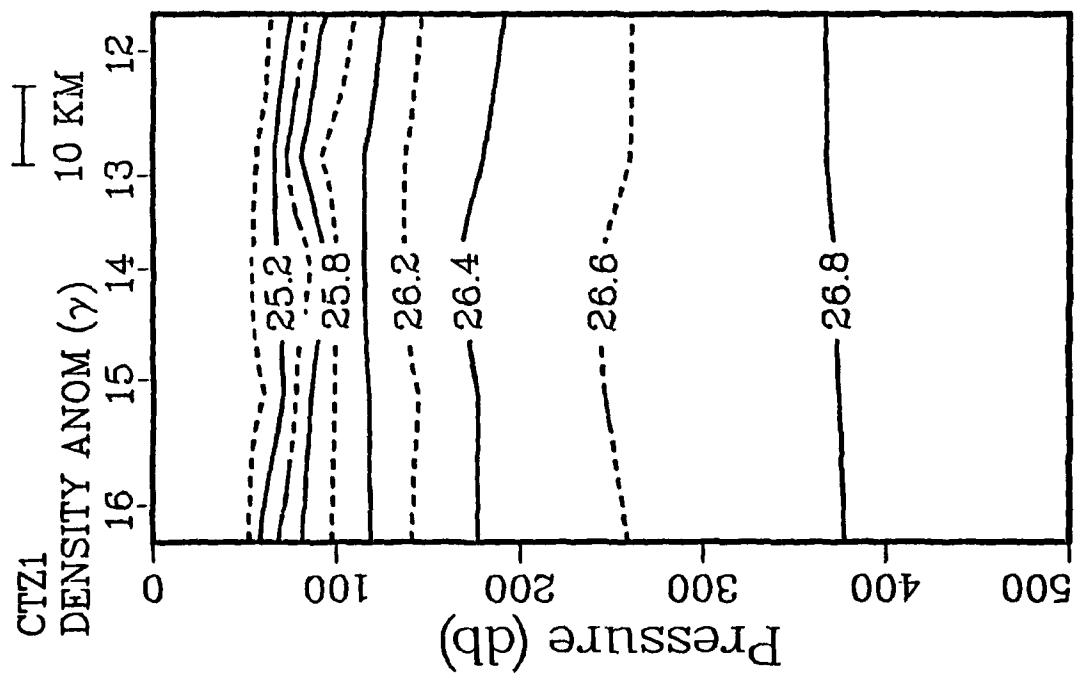


Figure 9c.



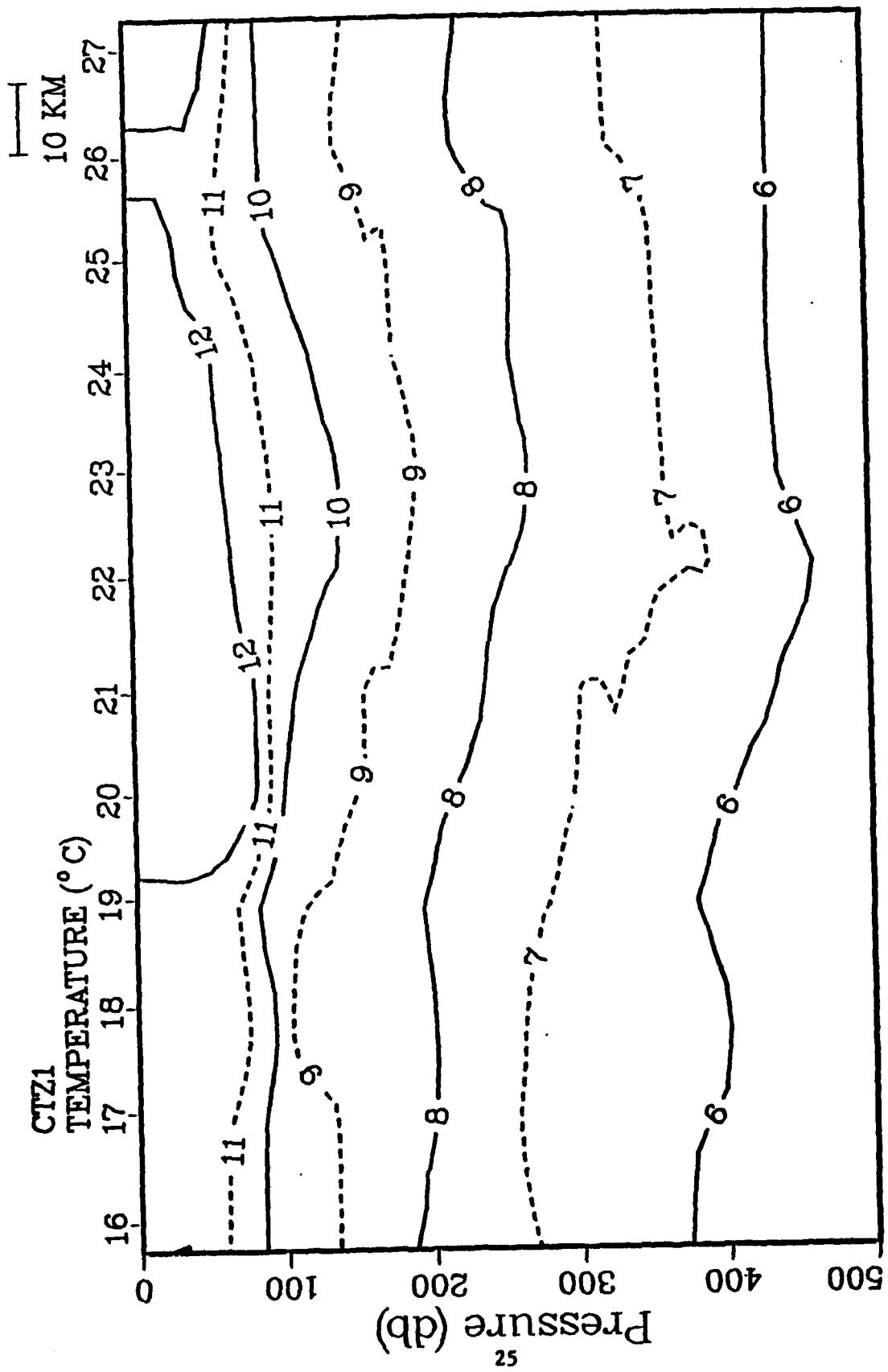


Figure 10. Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 16-27 of module G.

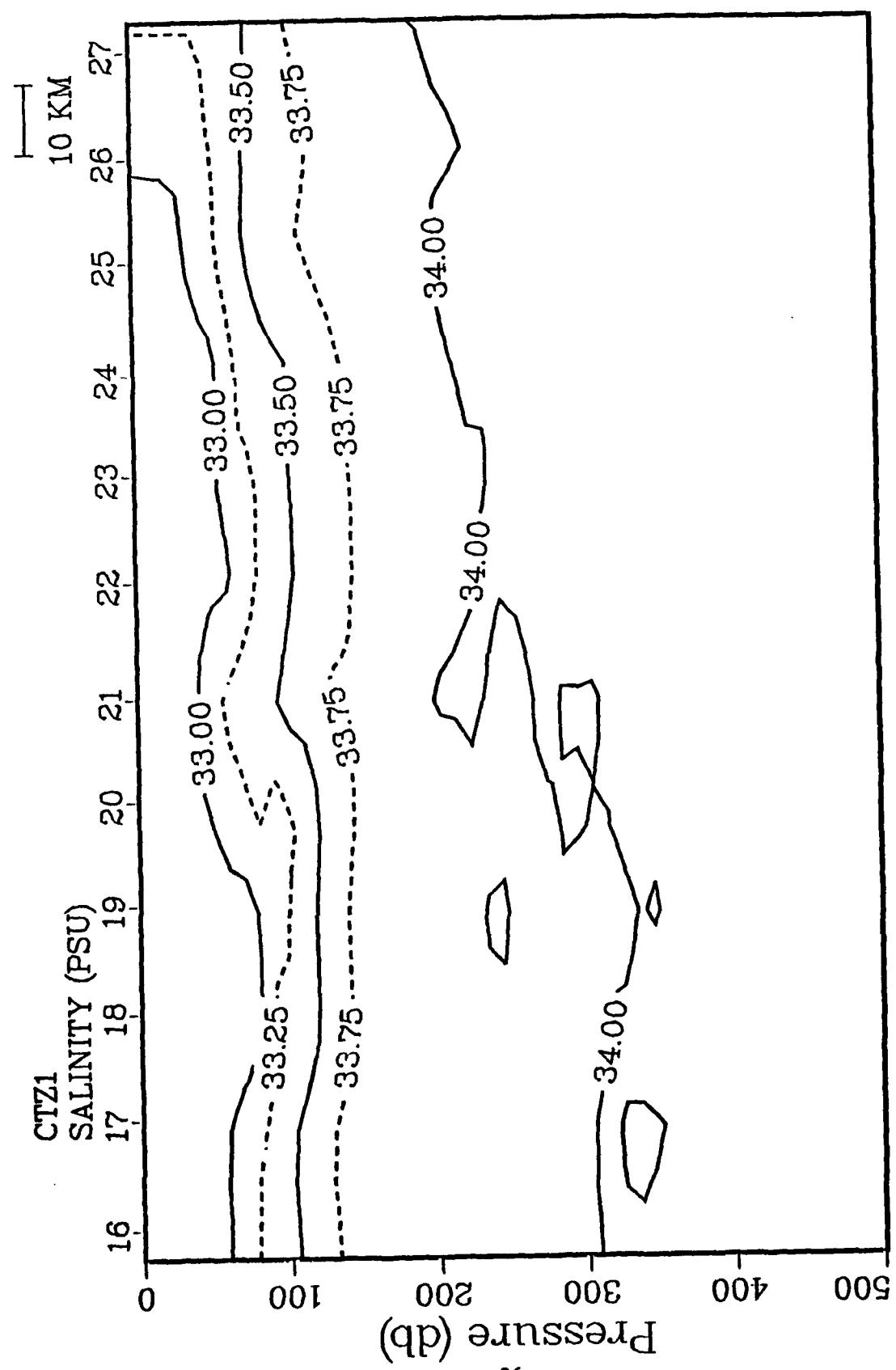


Figure 10b.

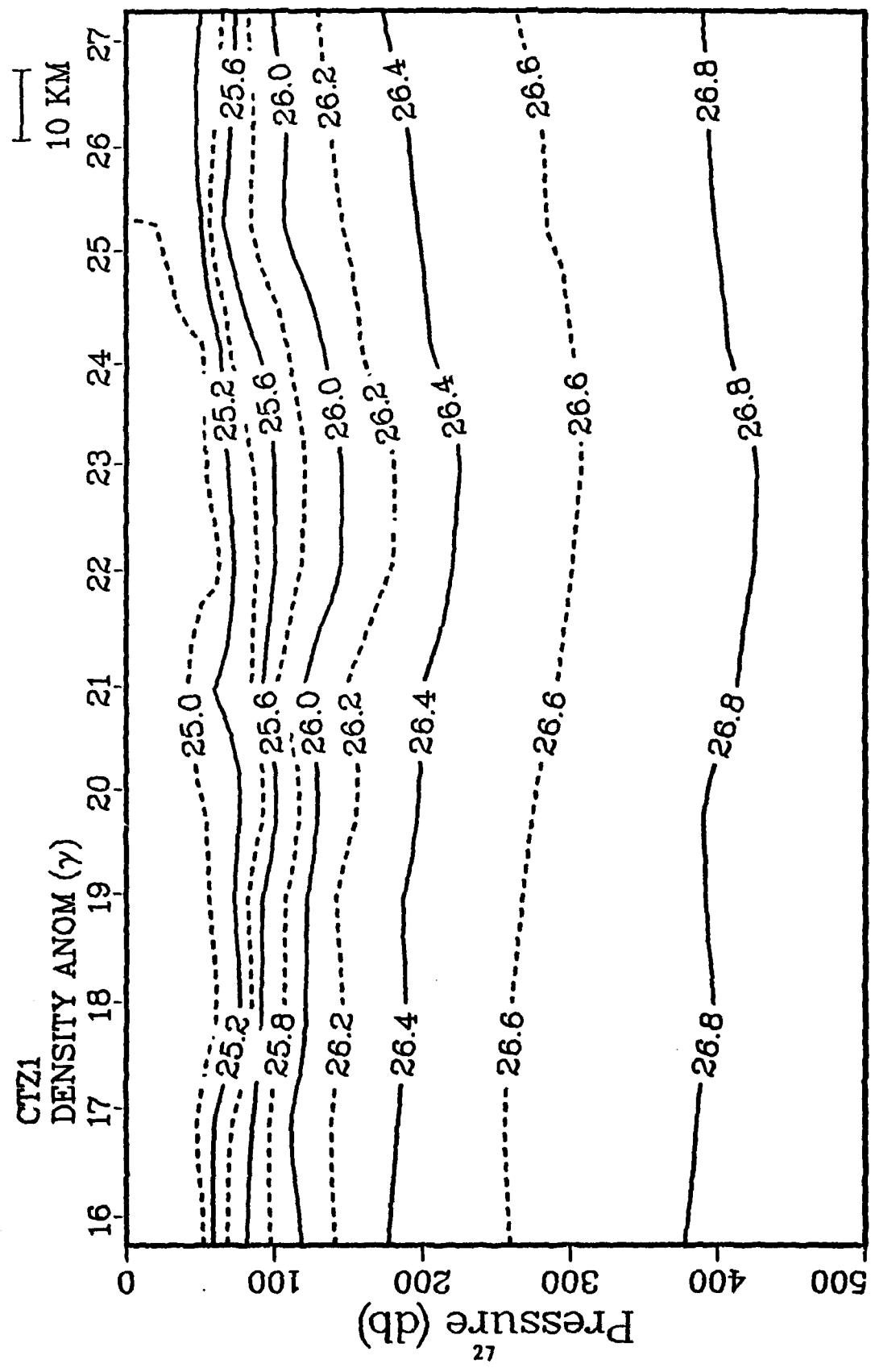


Figure 10c.

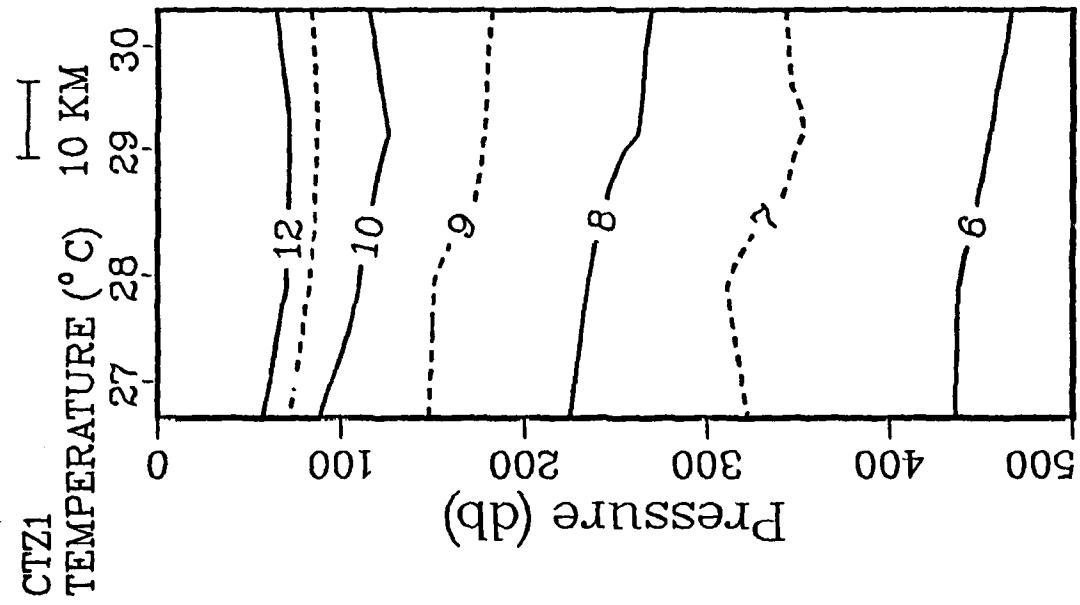


Figure 11. Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 27-30 of module C.

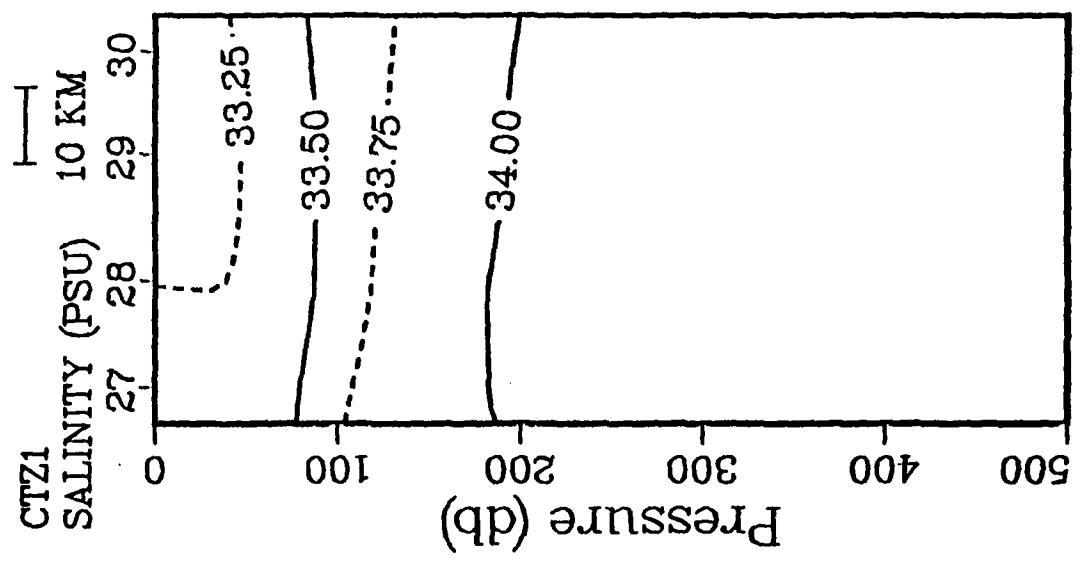


Figure 11b.

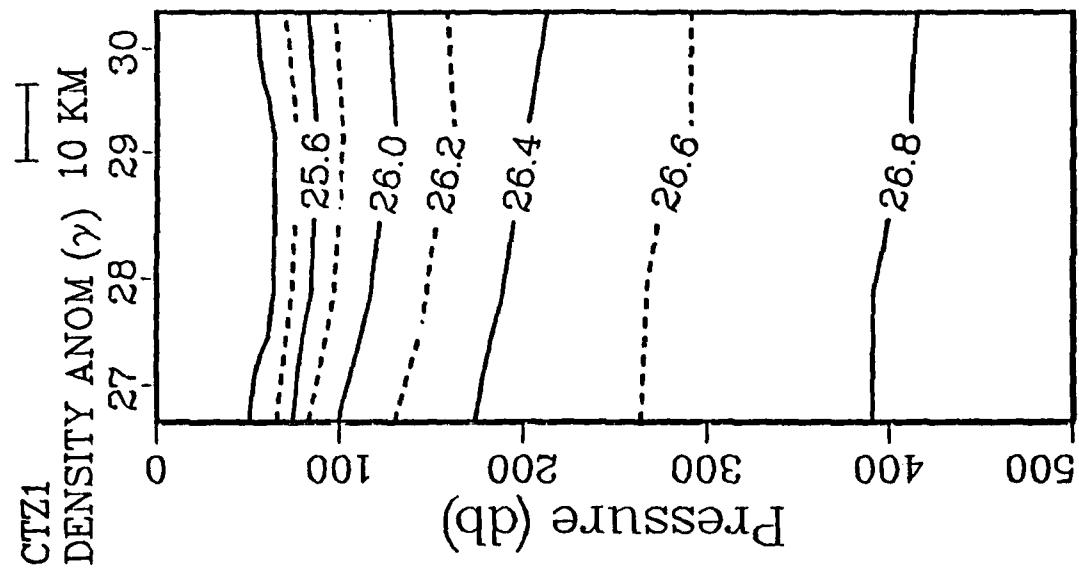


Figure 11c.

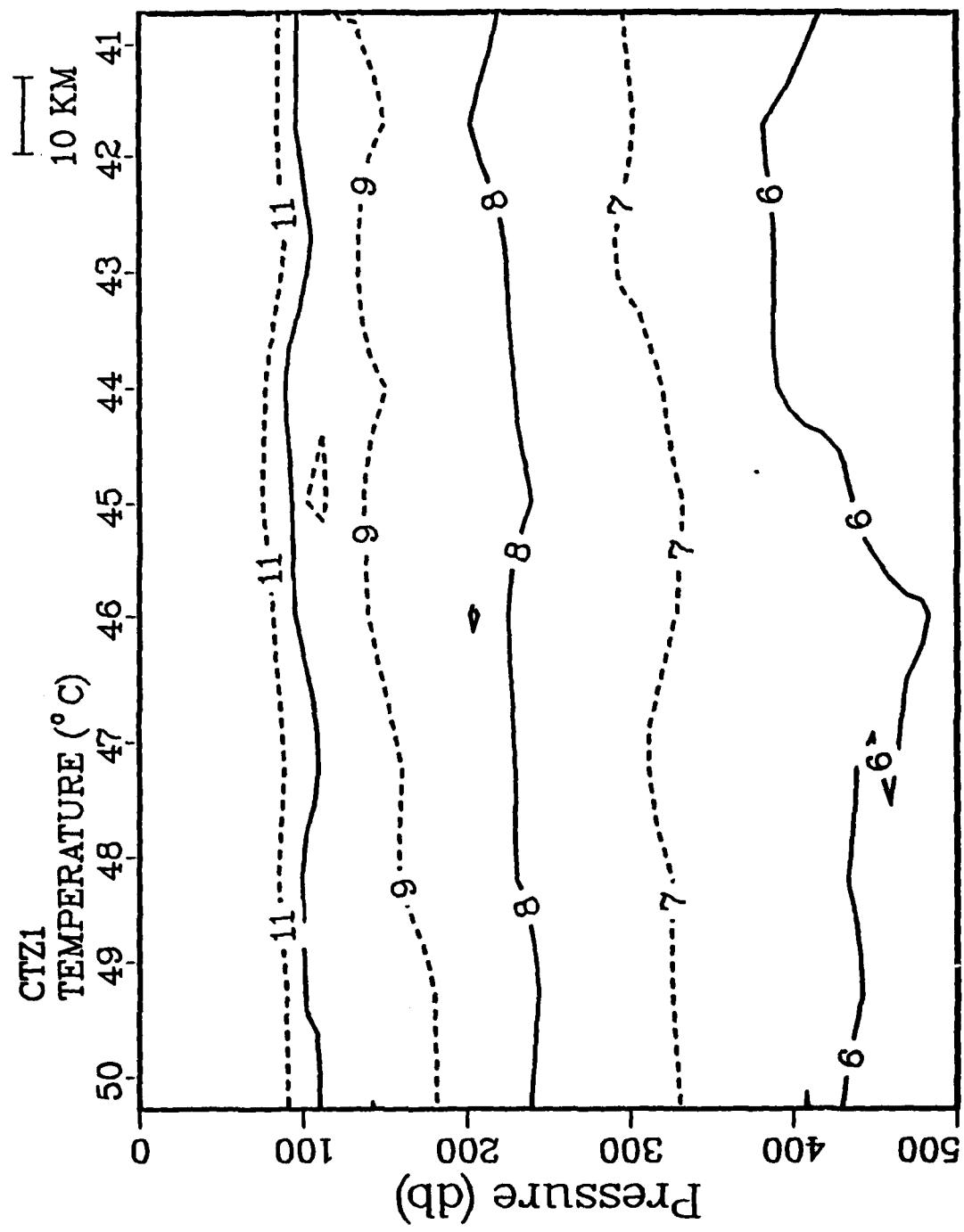


Figure 12. Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 41-50 of module B.

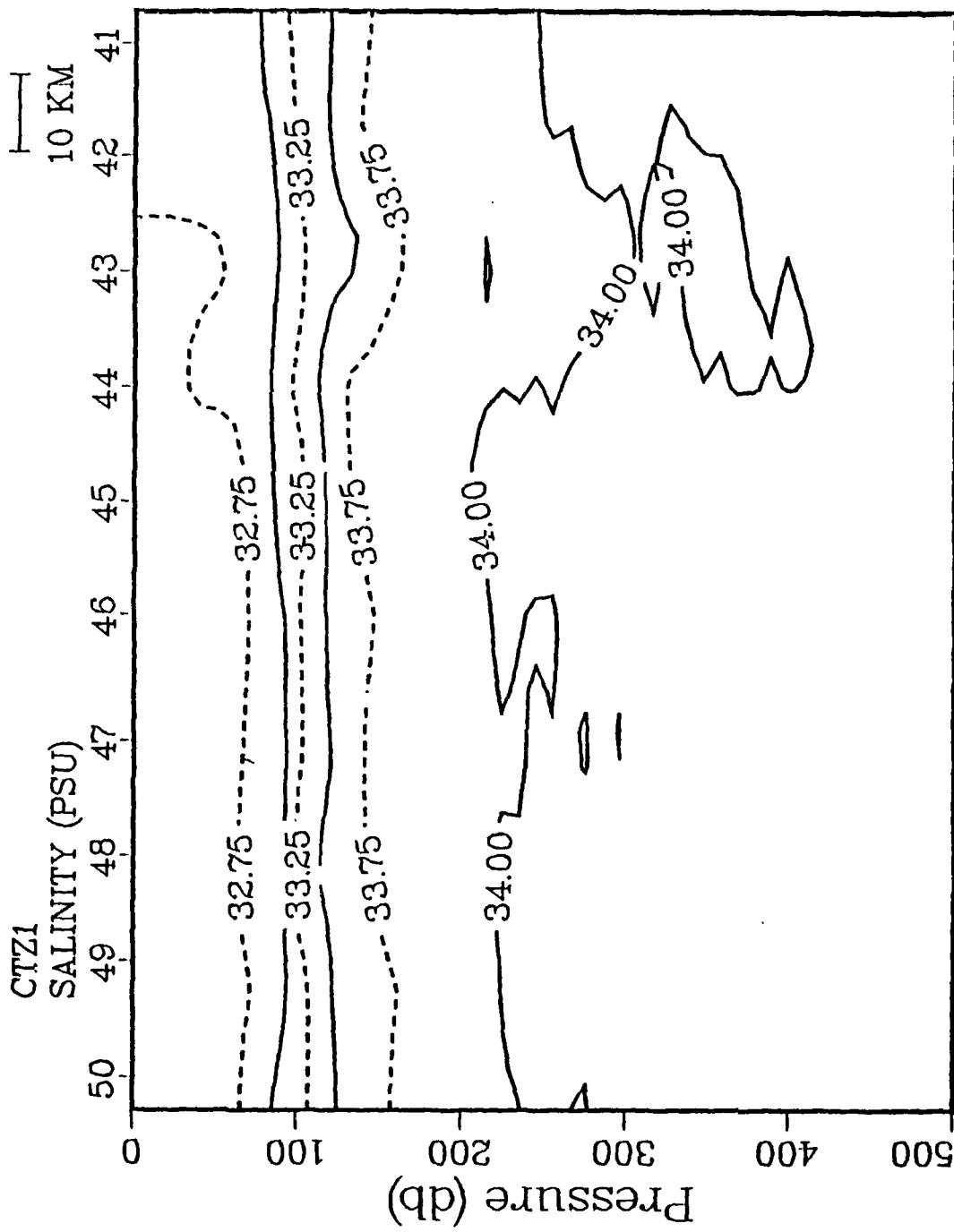


Figure 12b.

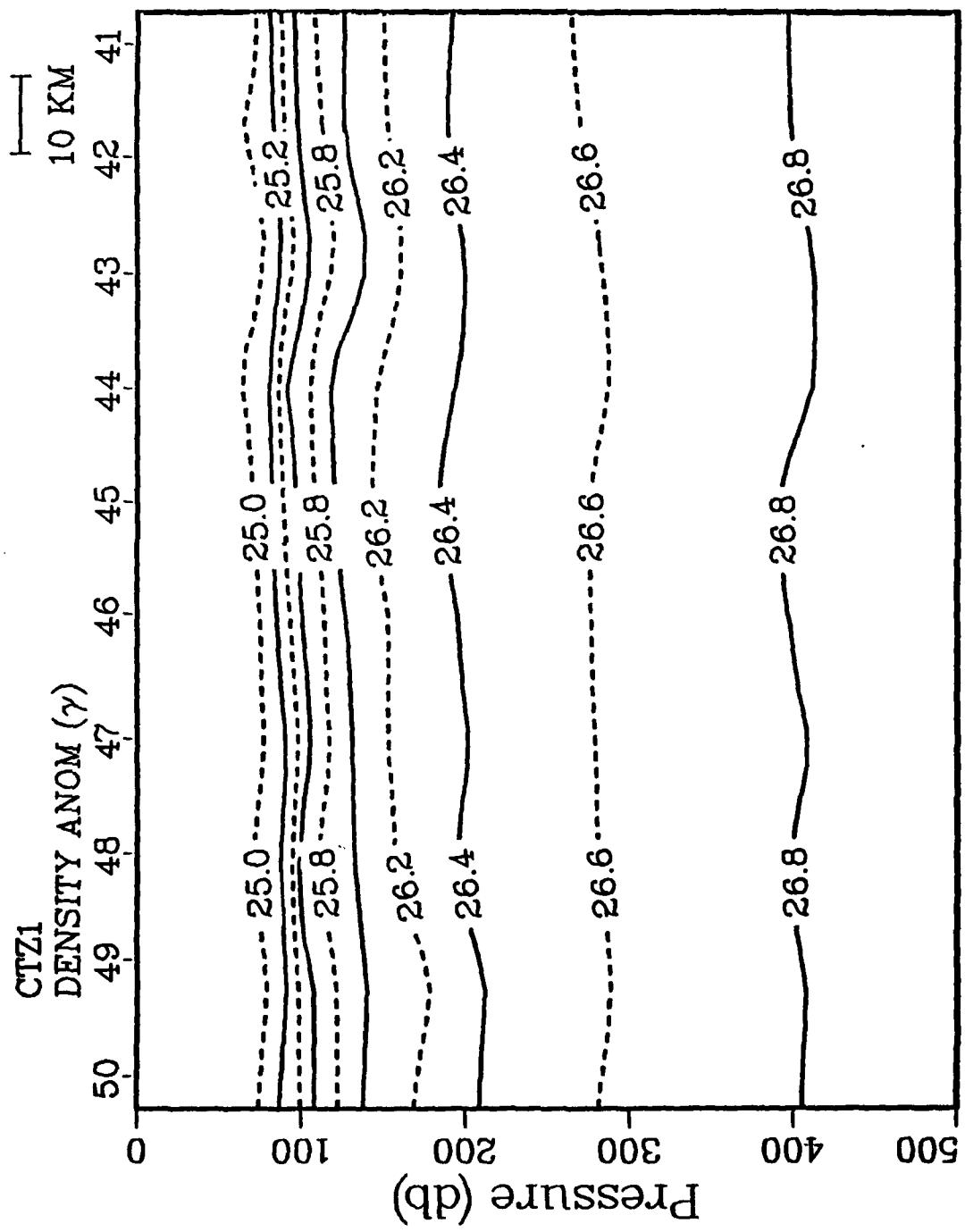


Figure 12c.

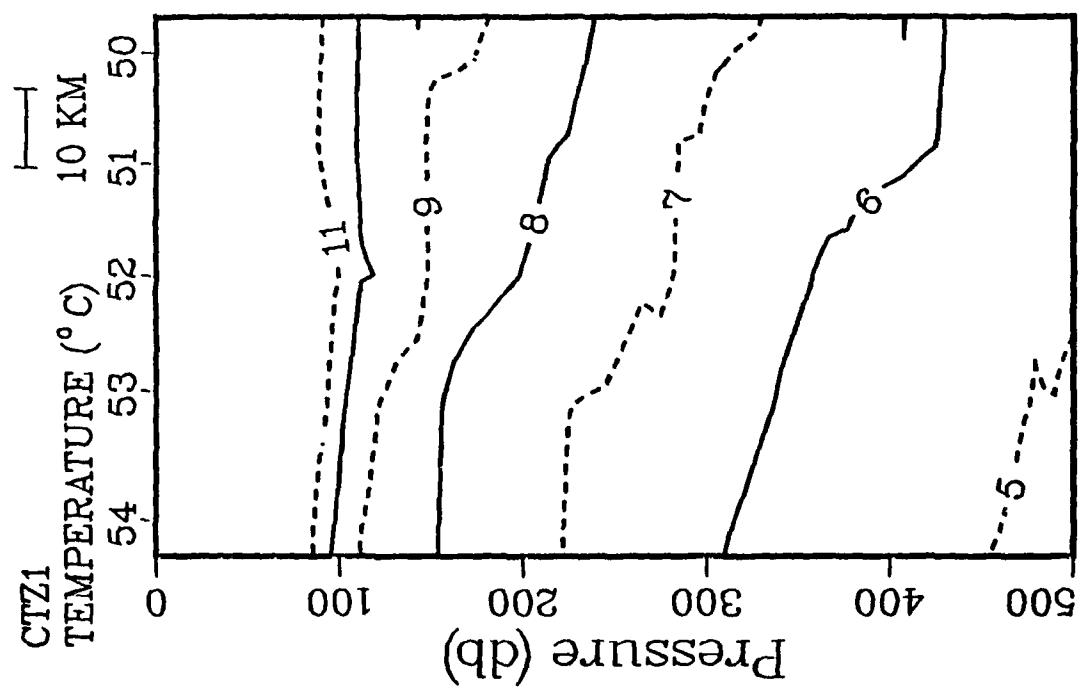
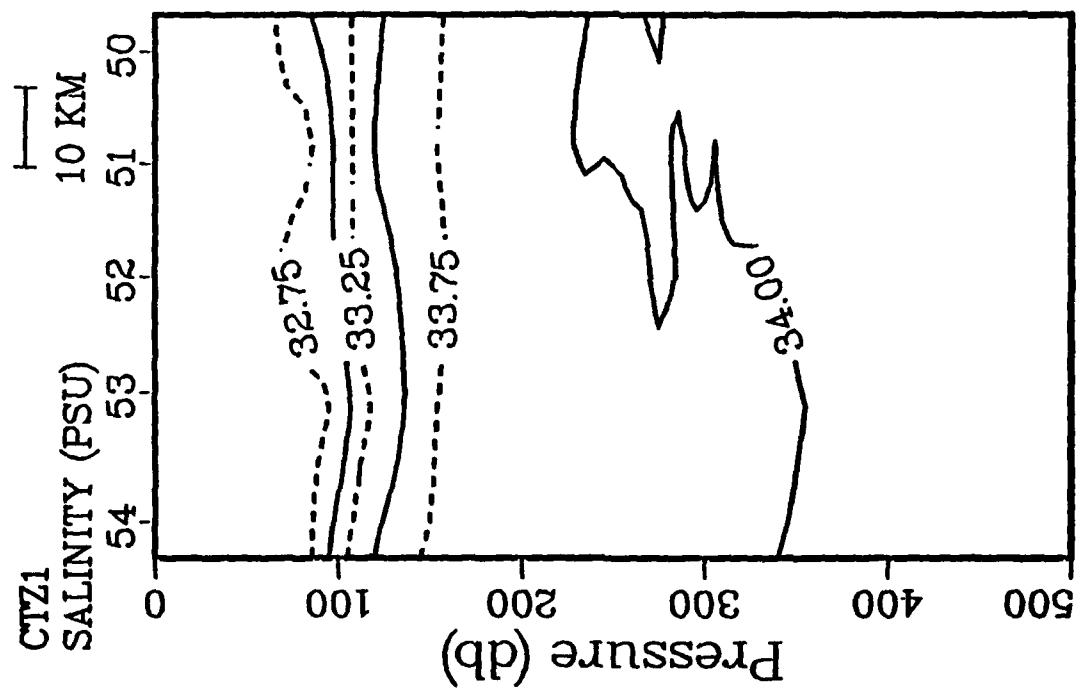


Figure 13. Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 50-54 of module B.

Figure 13b.



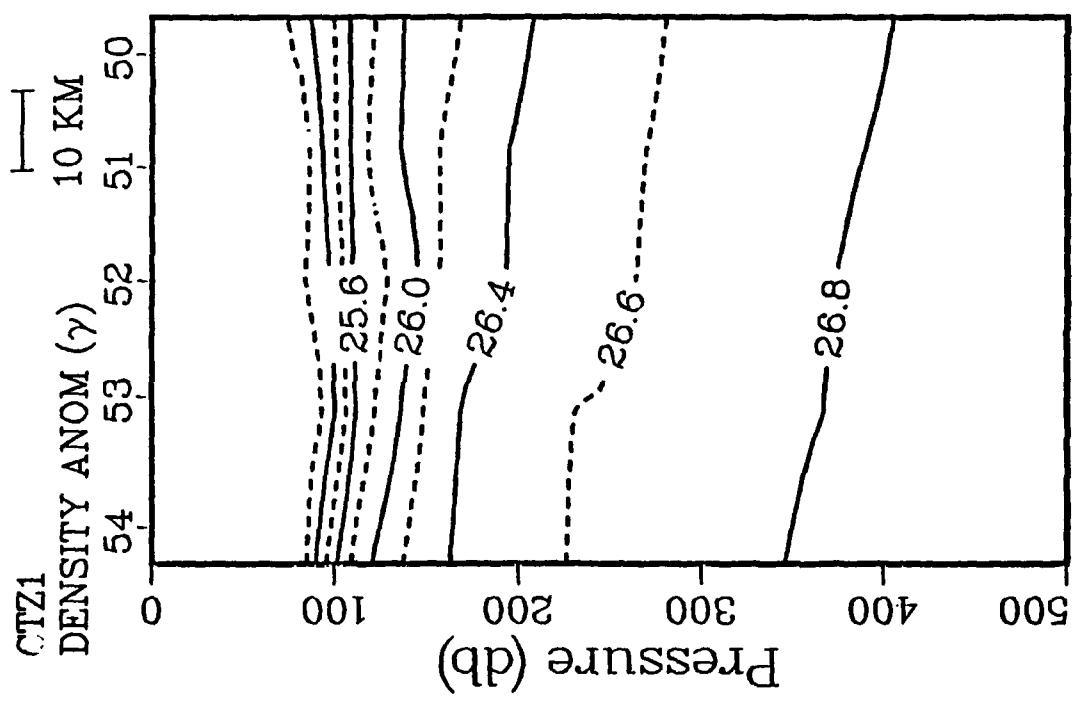


Figure 13c.

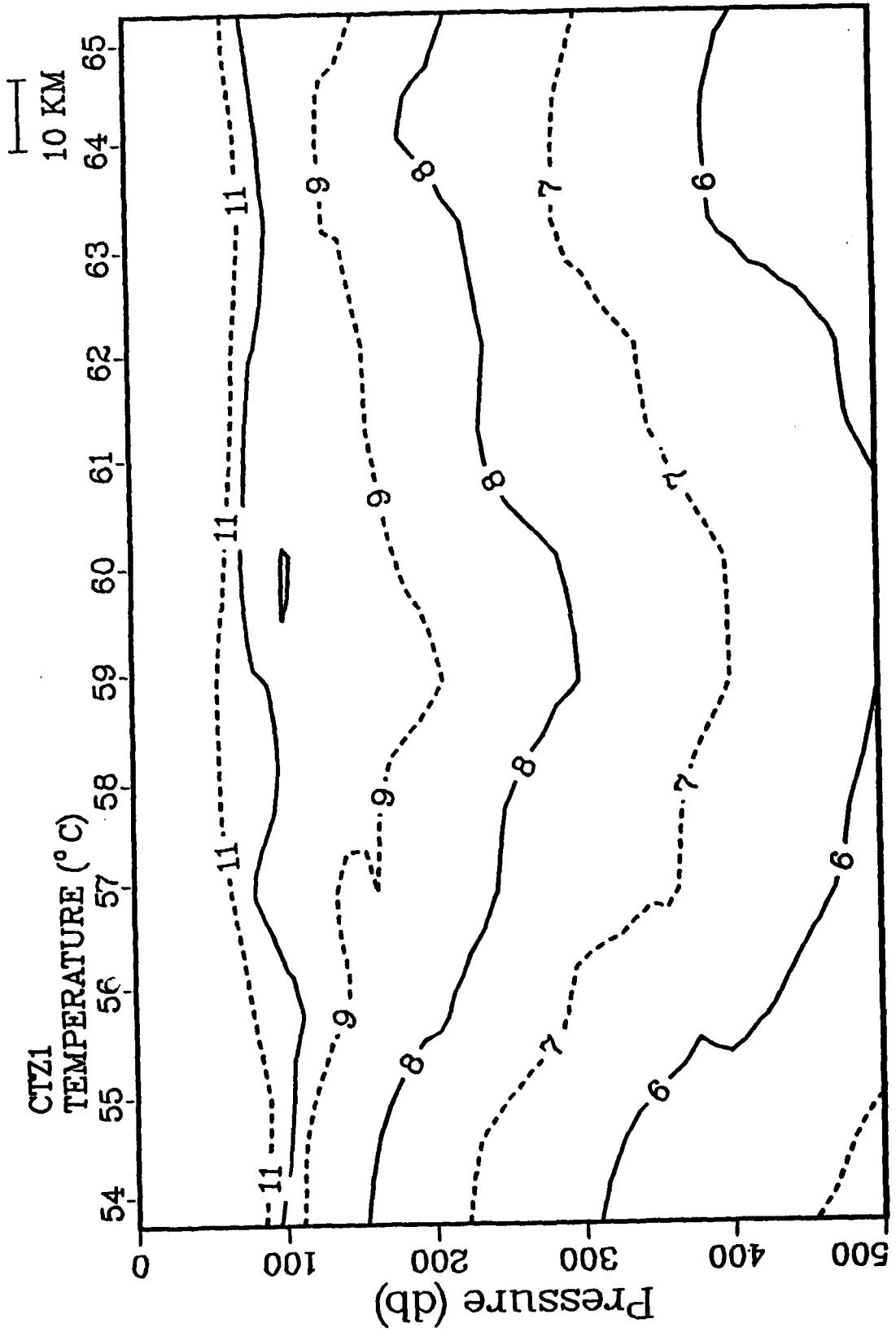


Figure 14. Vertical sections of a) temperature, b) salinity, and c) density anomalies from CTD stations 54-65 of module B.

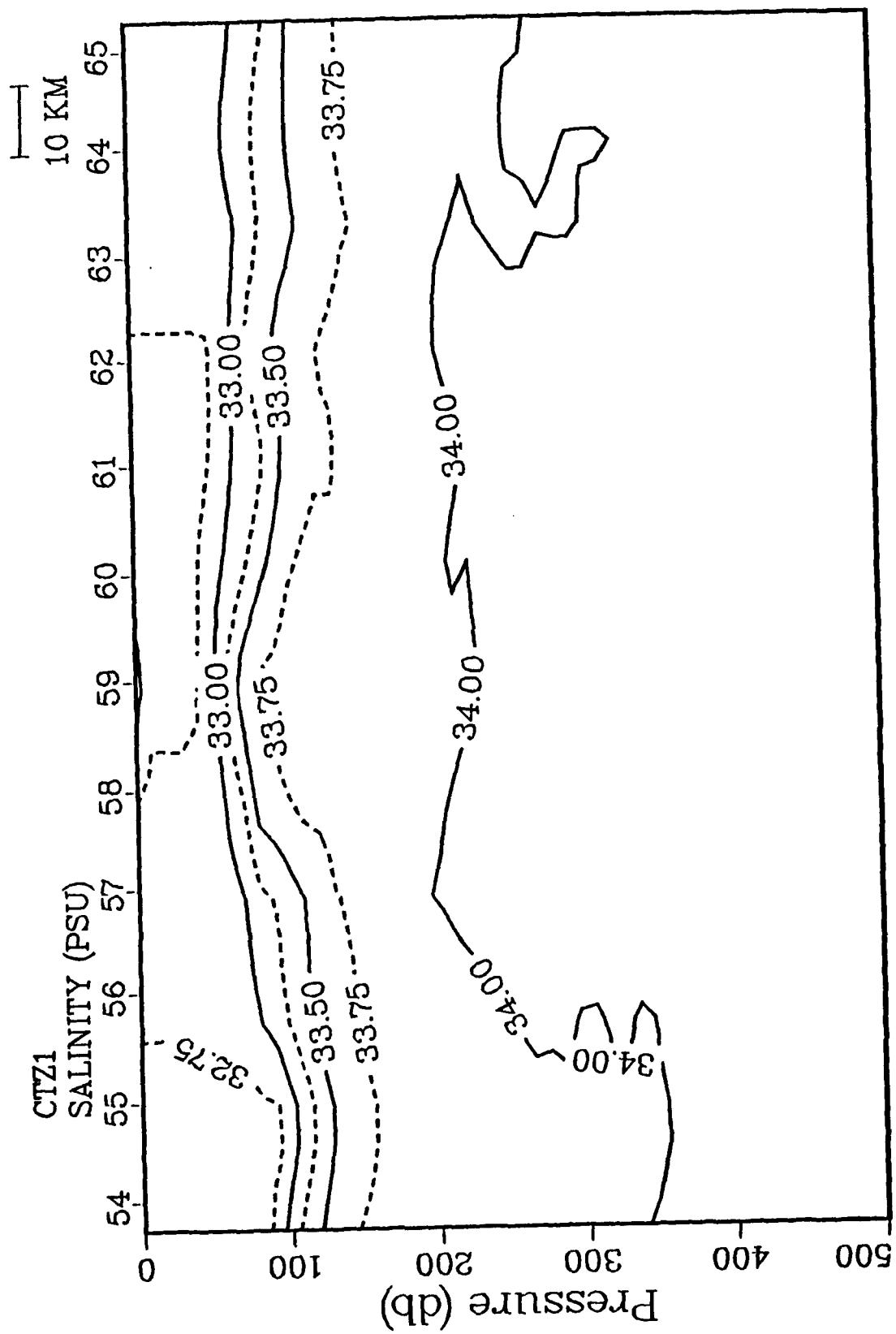


Figure 14b.

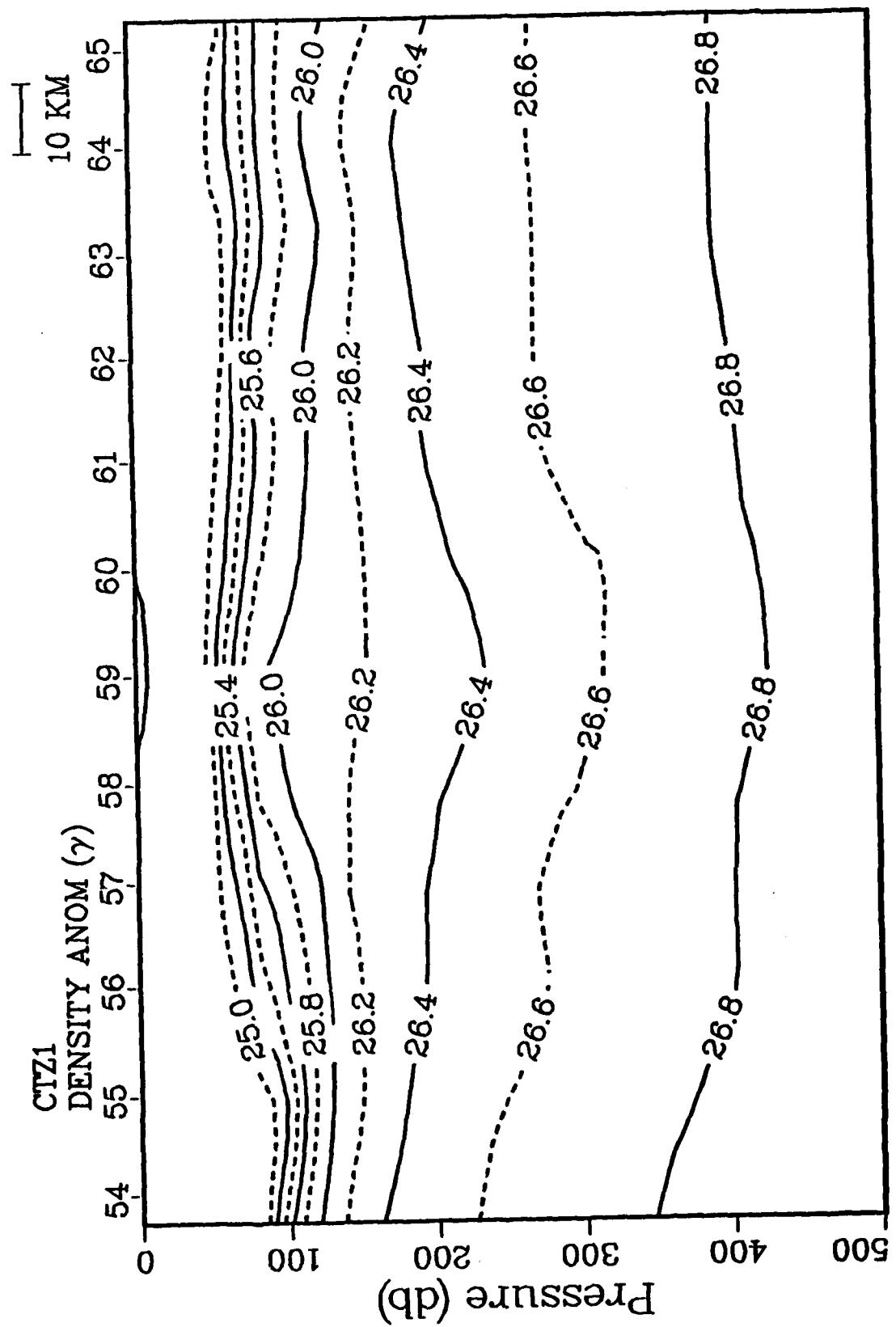


Figure 14c.

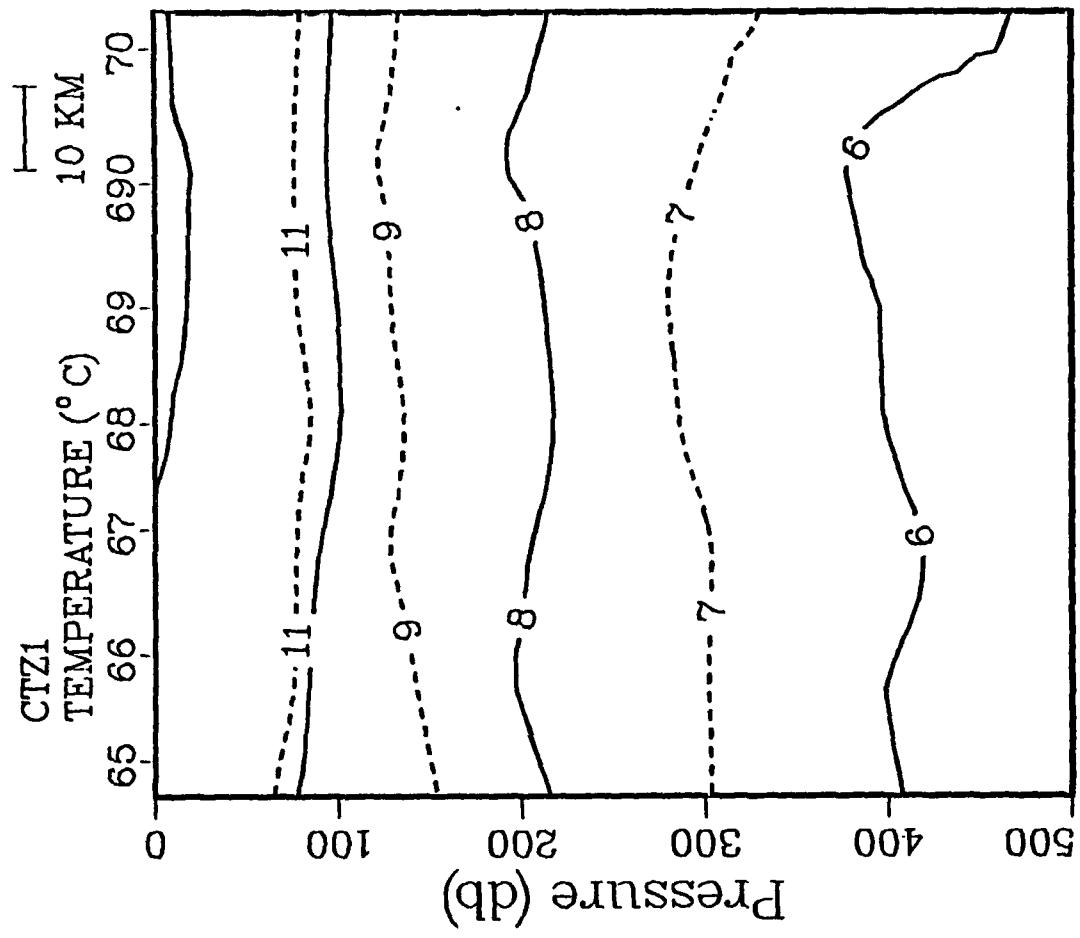


Figure 15. Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 65-70 of module B.

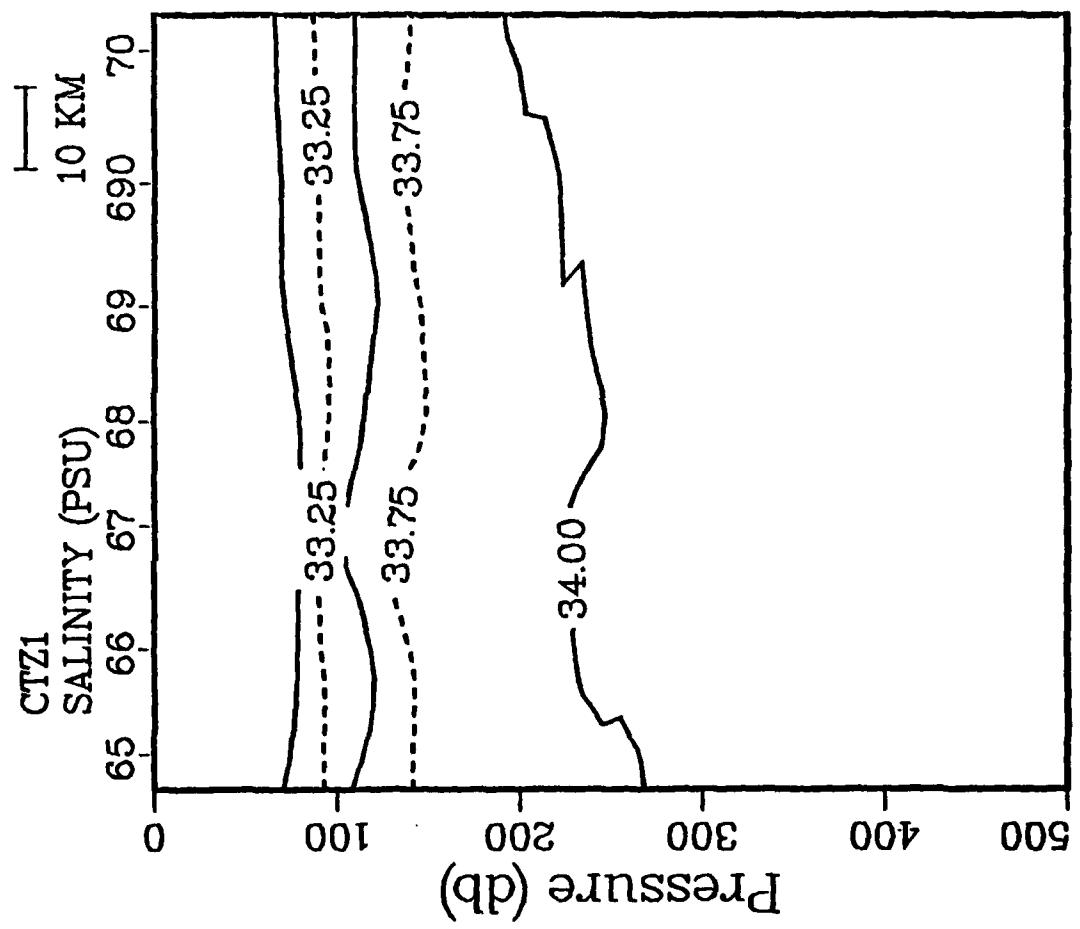


Figure 15b.

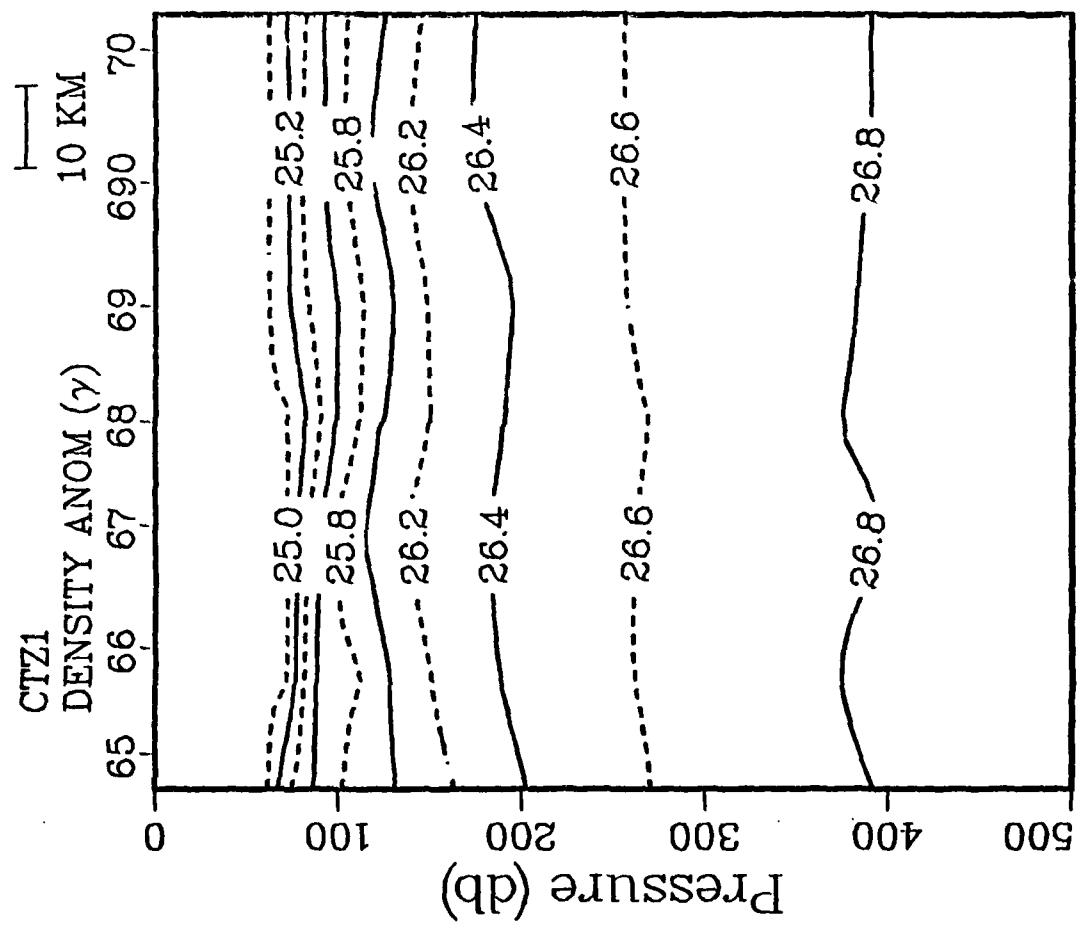


Figure 15c.

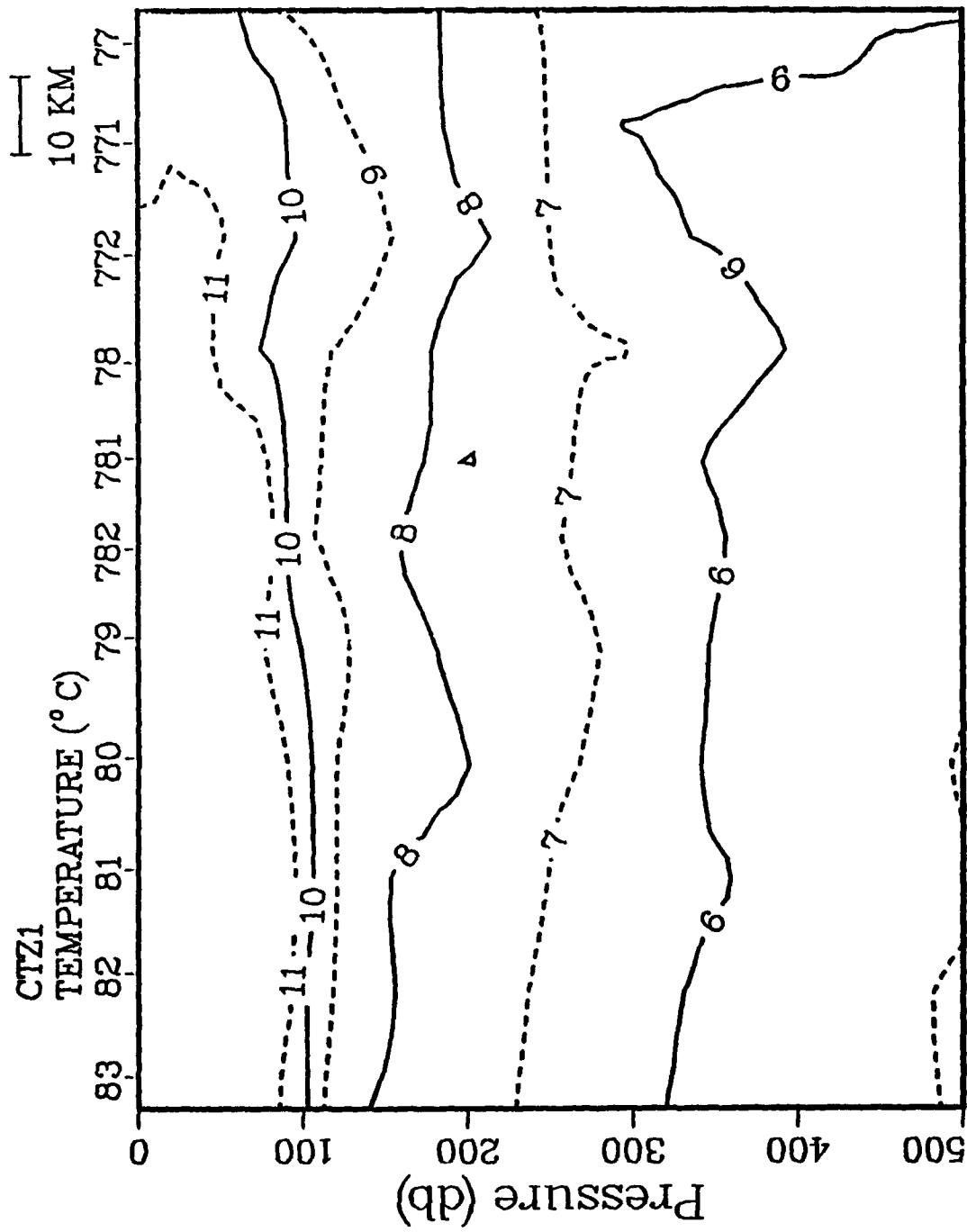


Figure 16. Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 77-83 of module A.

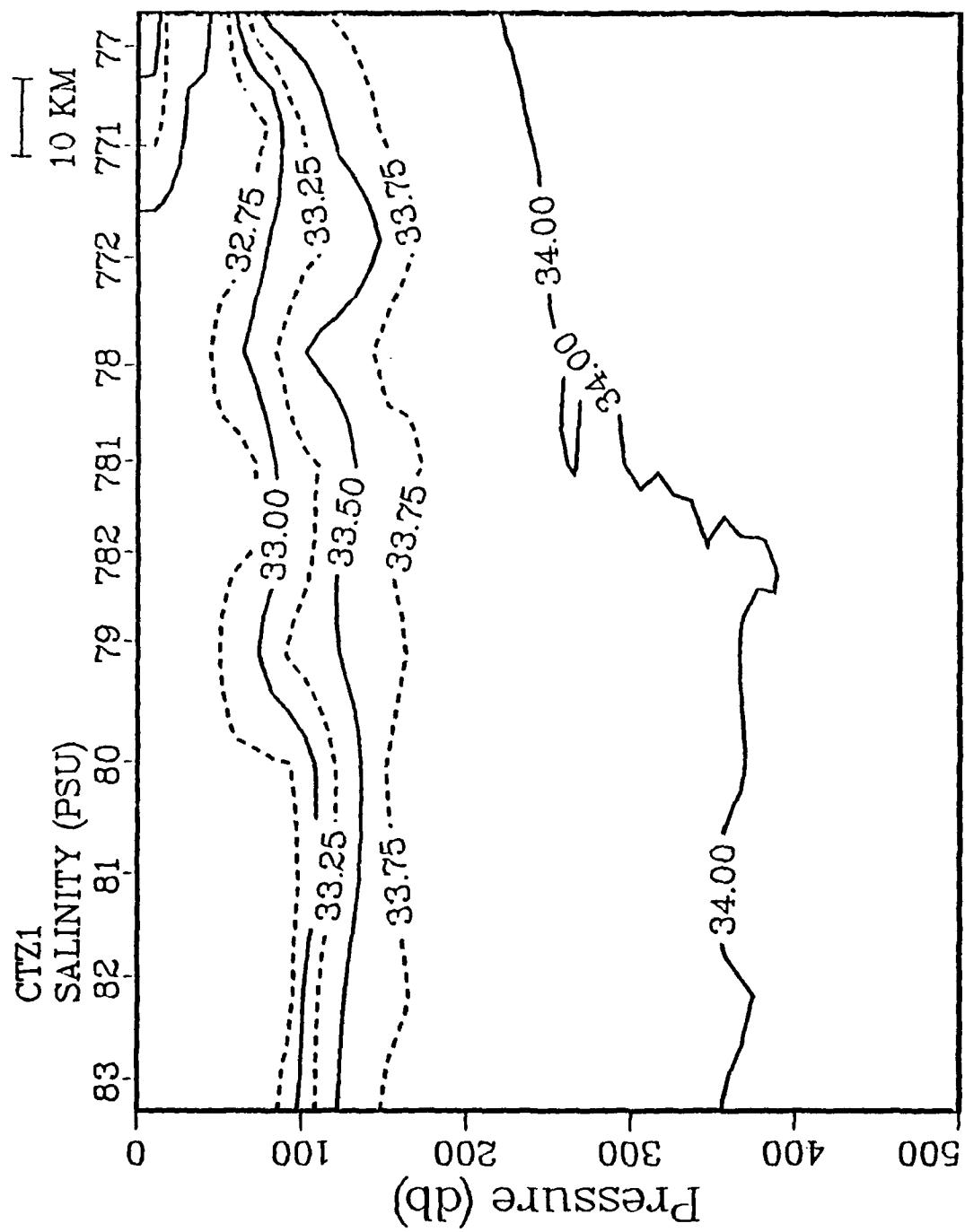


Figure 16b.

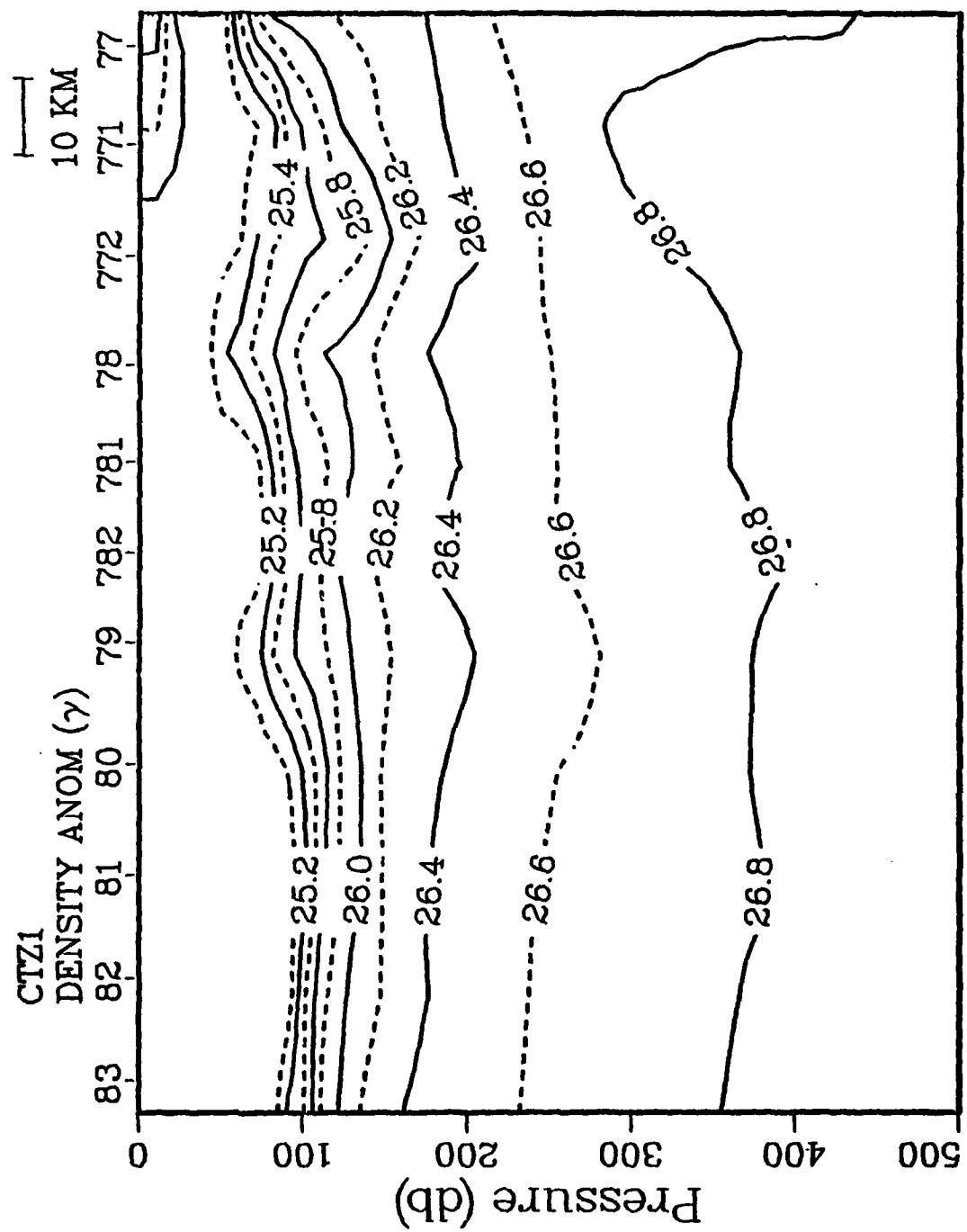


Figure 16c.

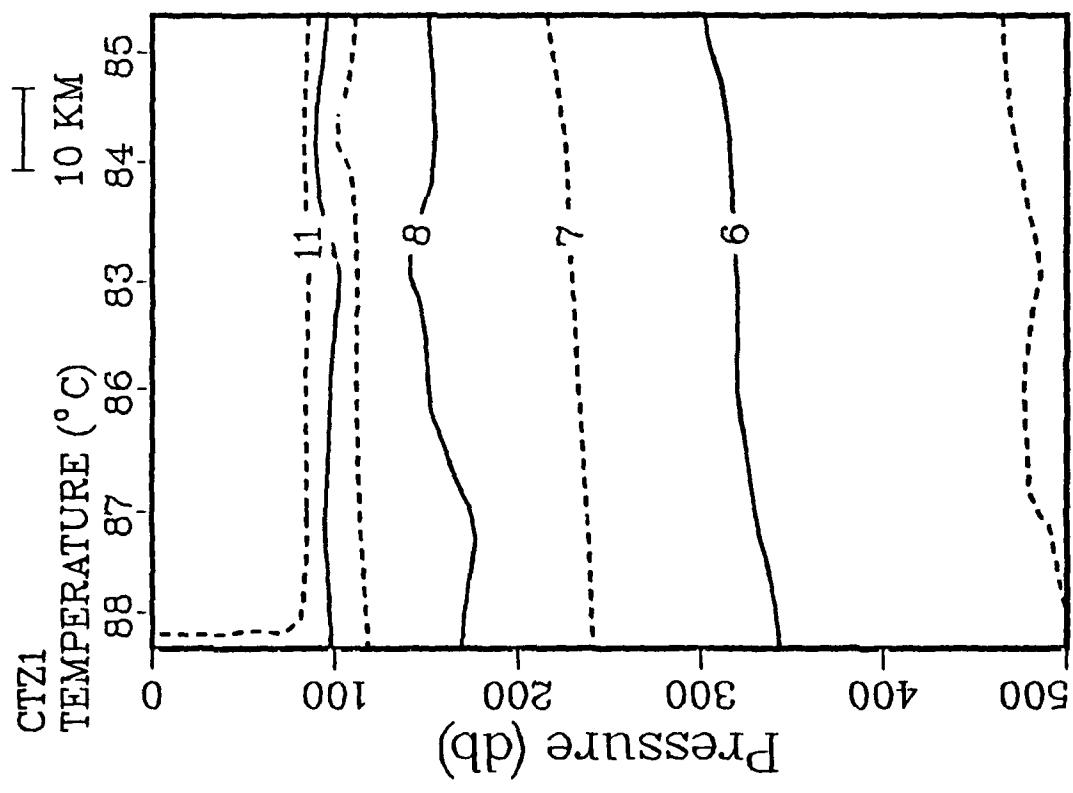


Figure 17. Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 88-86 and 83-85 of module A.

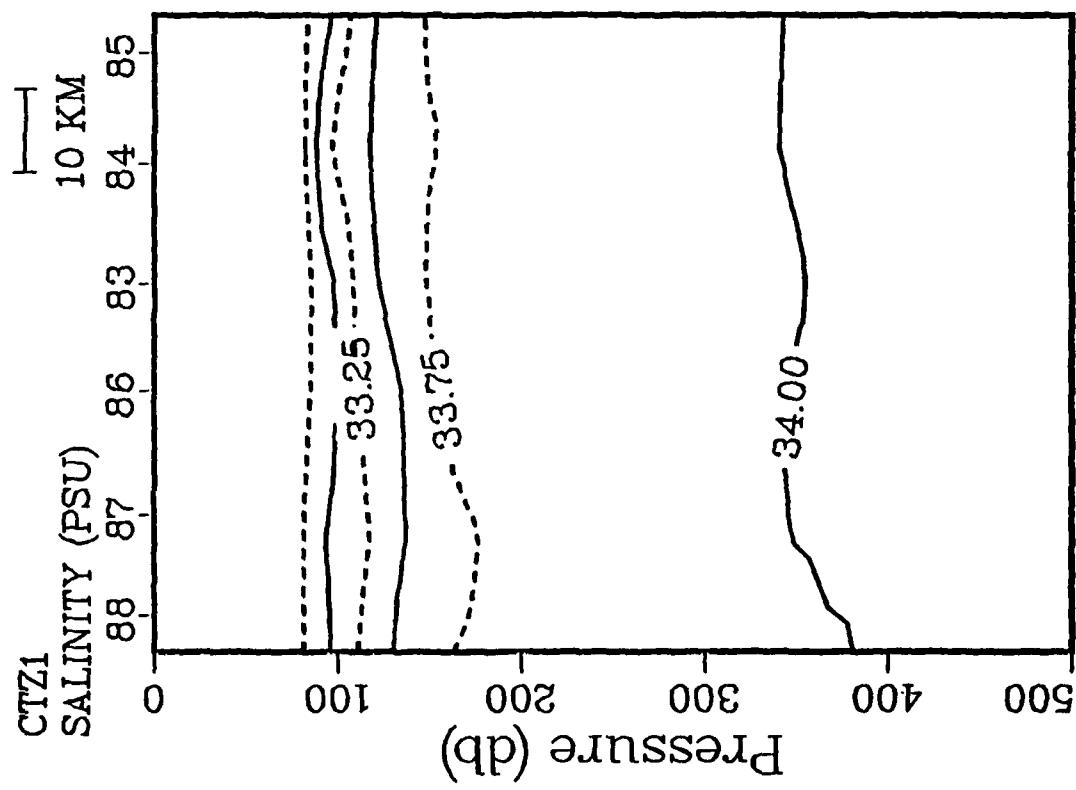


Figure 17b.

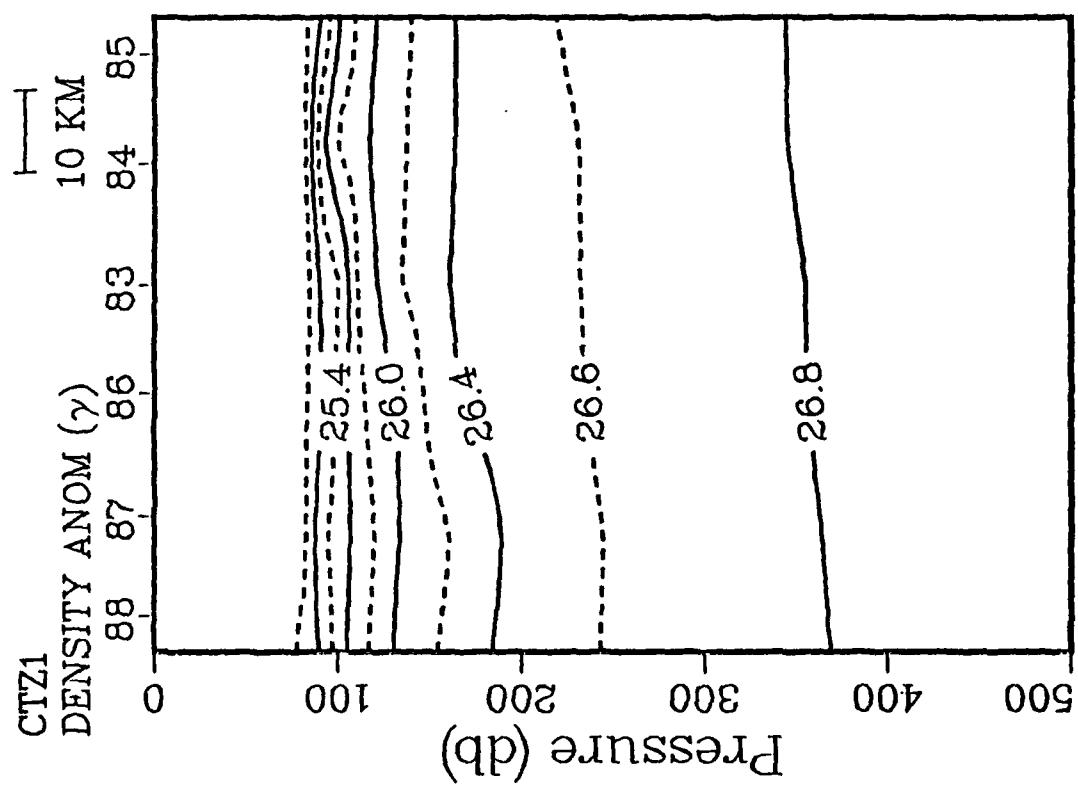


Figure 17c.

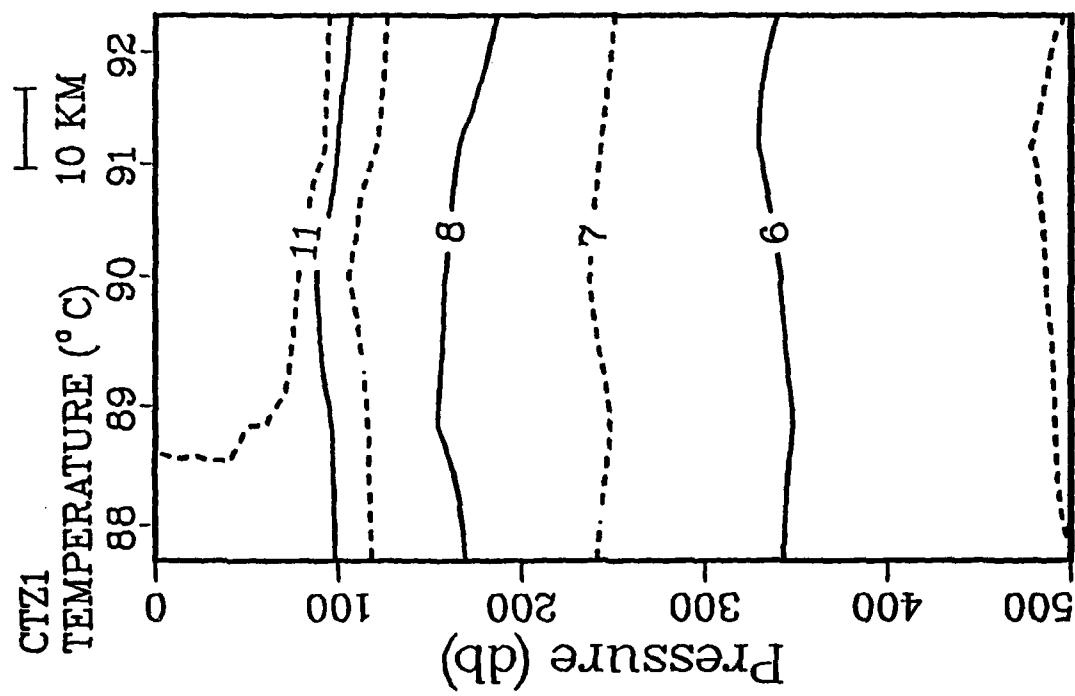


Figure 18. Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 88-92 of module A.

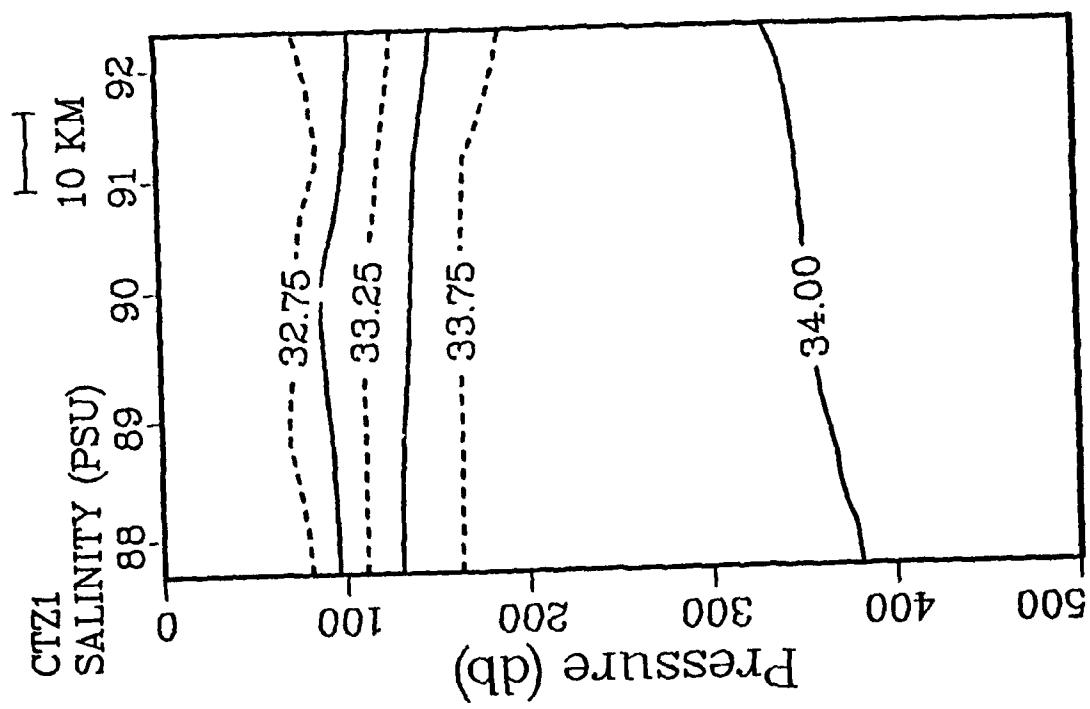


Figure 18b.

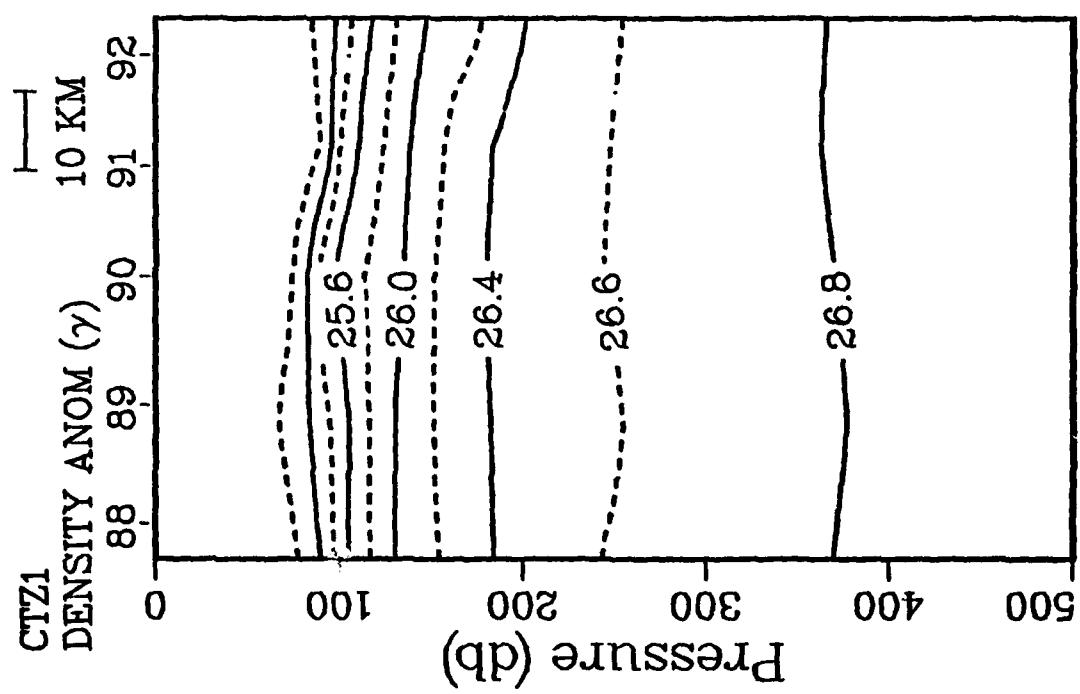


Figure 18c.

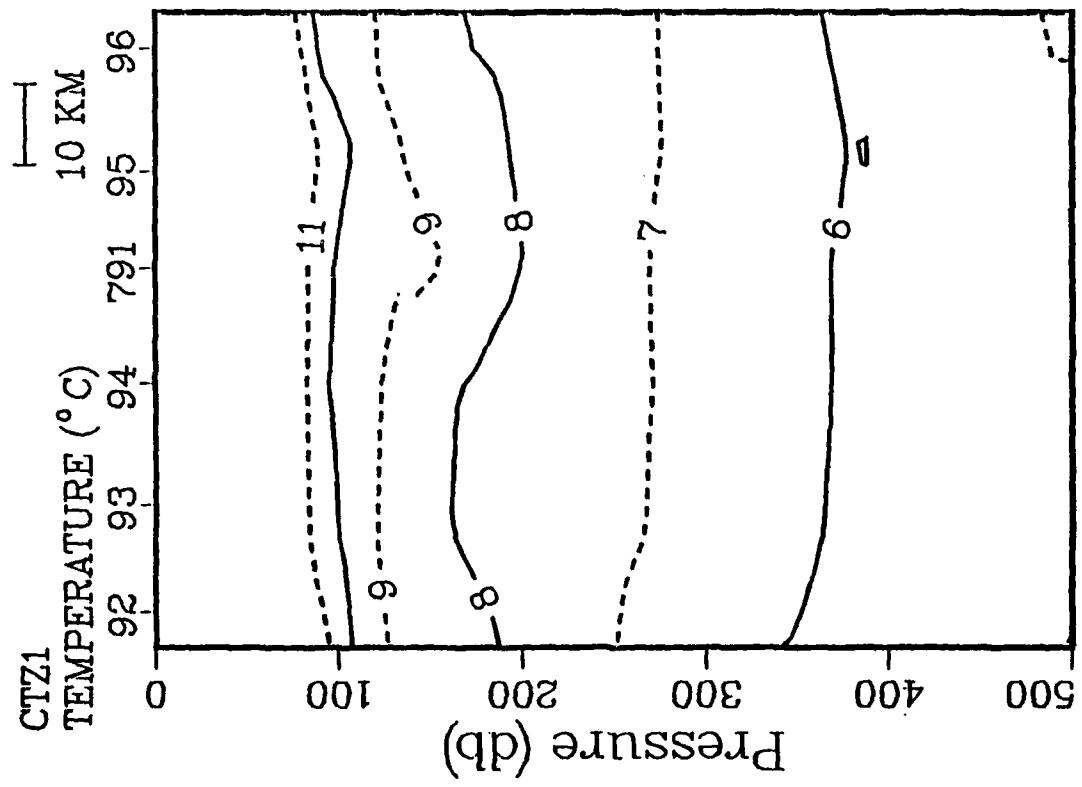
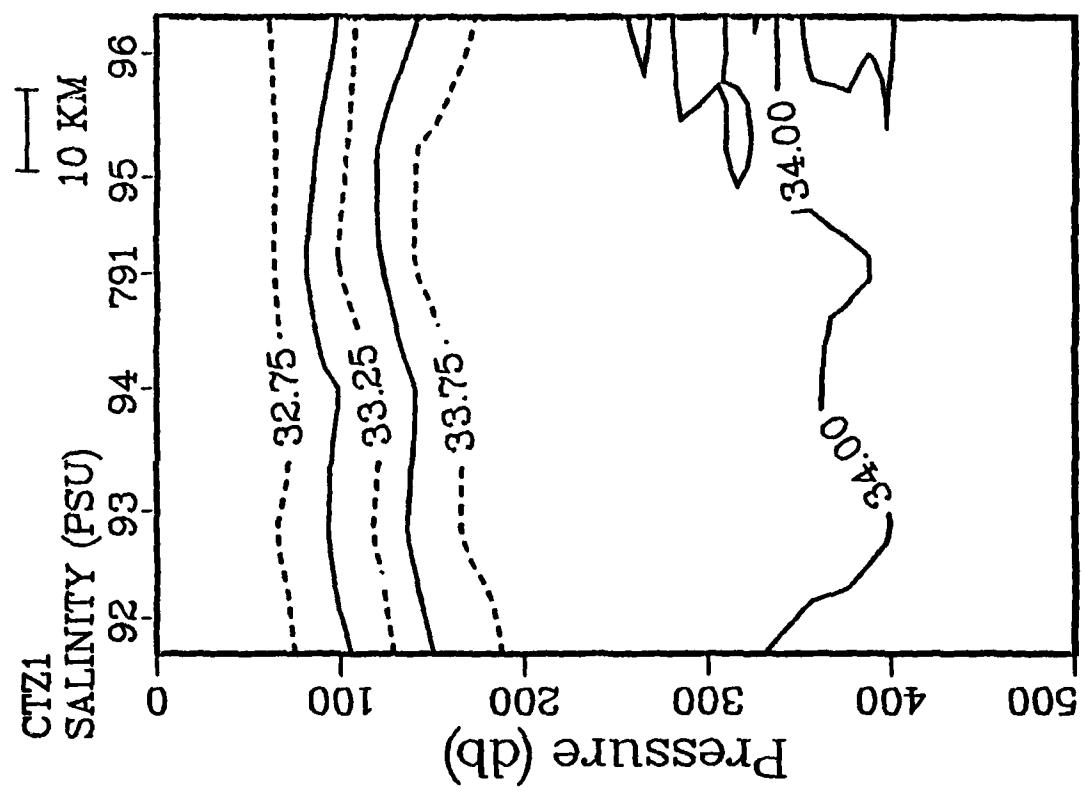


Figure 19. Vertical sections of a) temperature, b) salinity, and c) density anomaly from CTD stations 92-96 of module A.

Figure 19b.



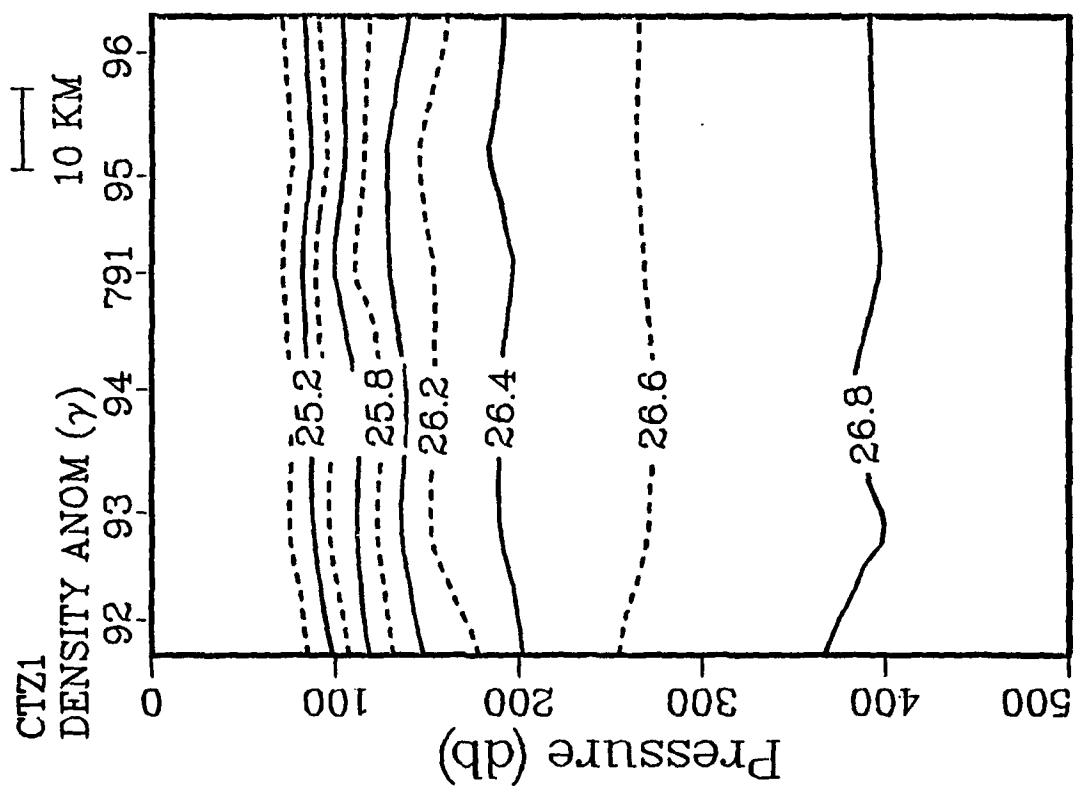


Figure 19c.

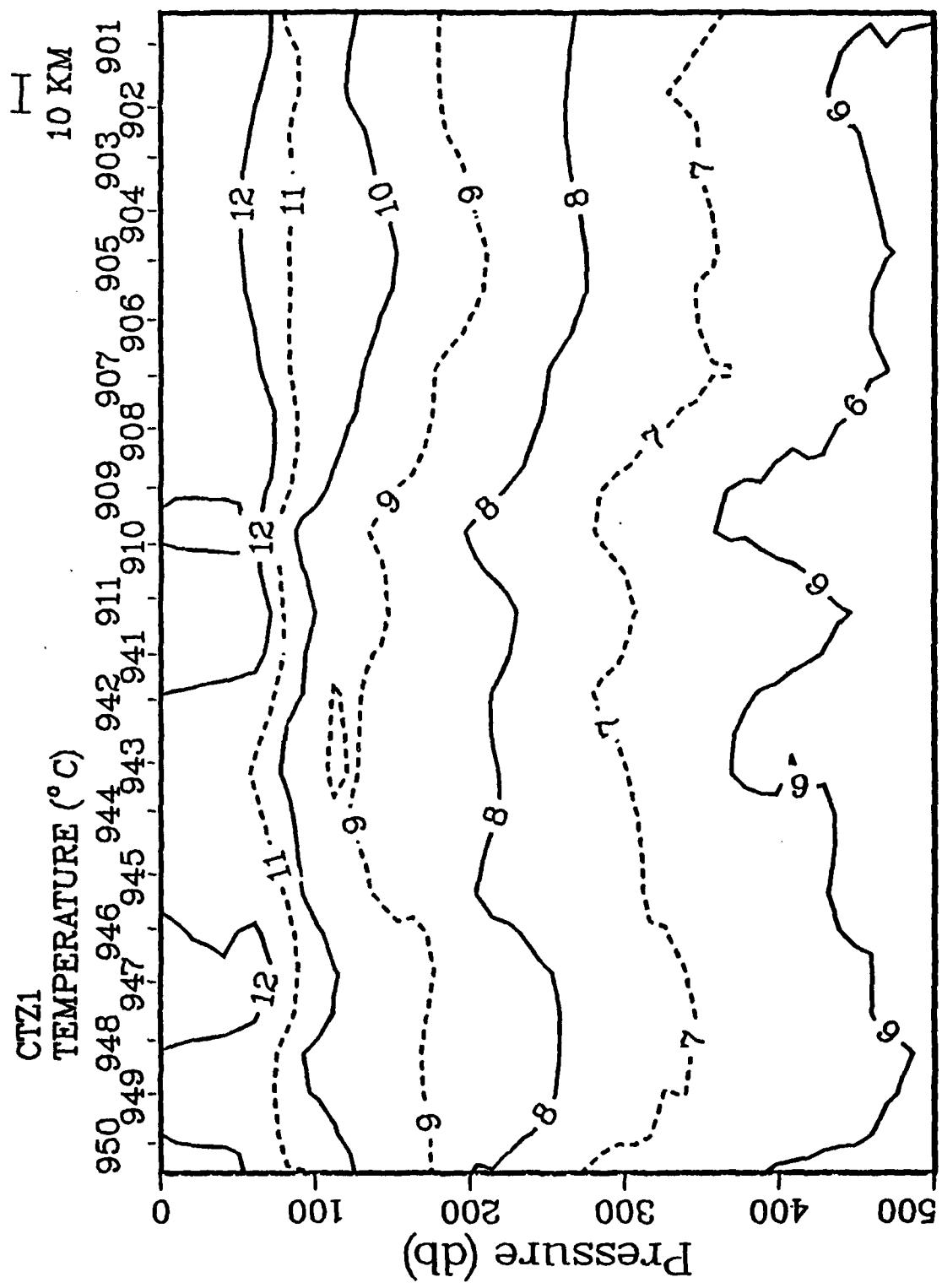
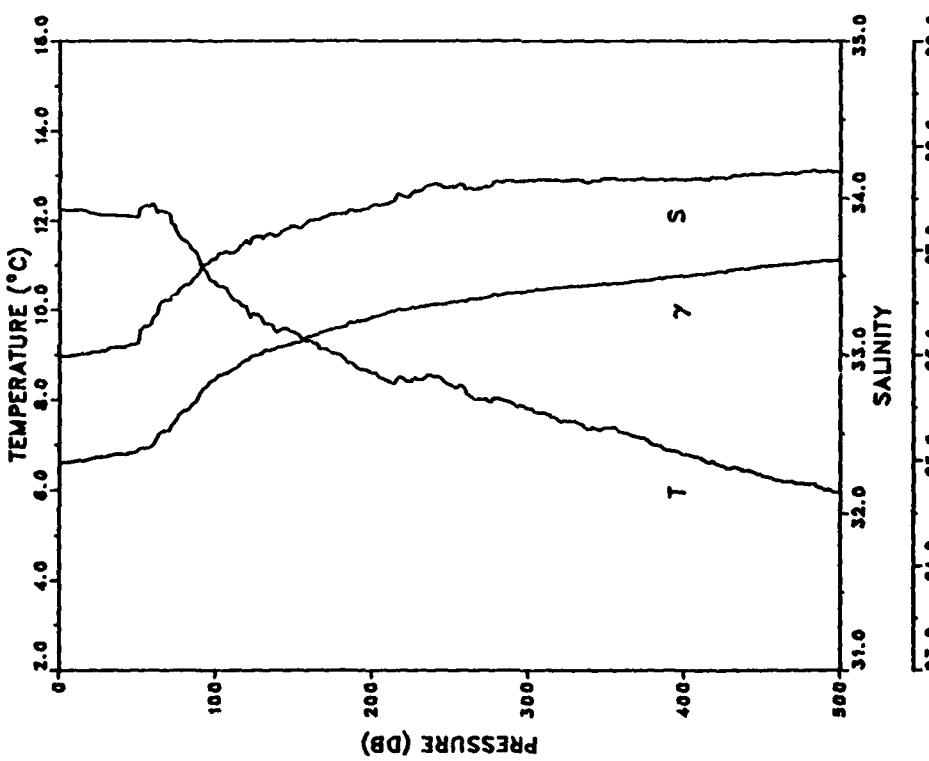


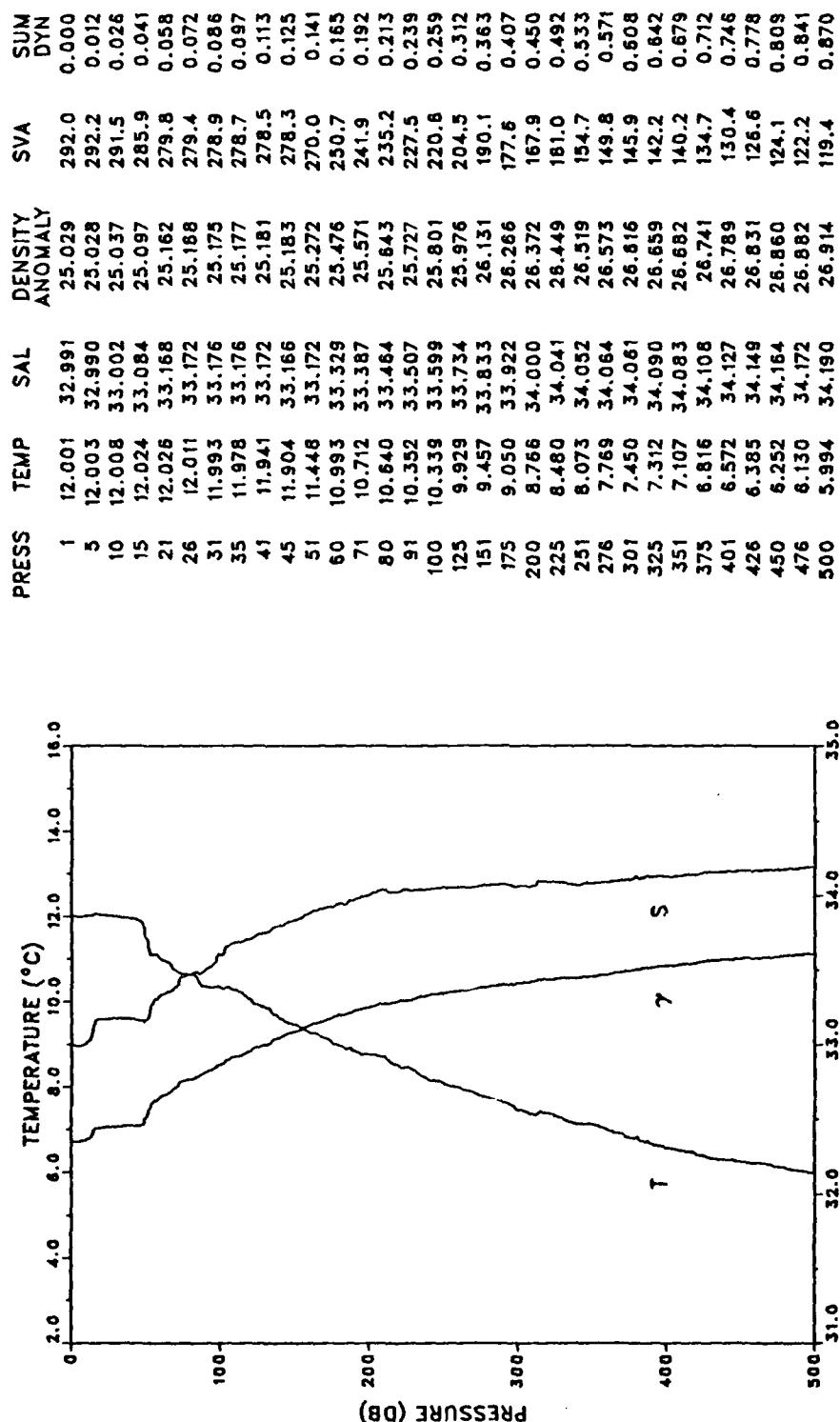
Figure 20. Vertical section of temperature from XBT drops 950-941 and 911-901.

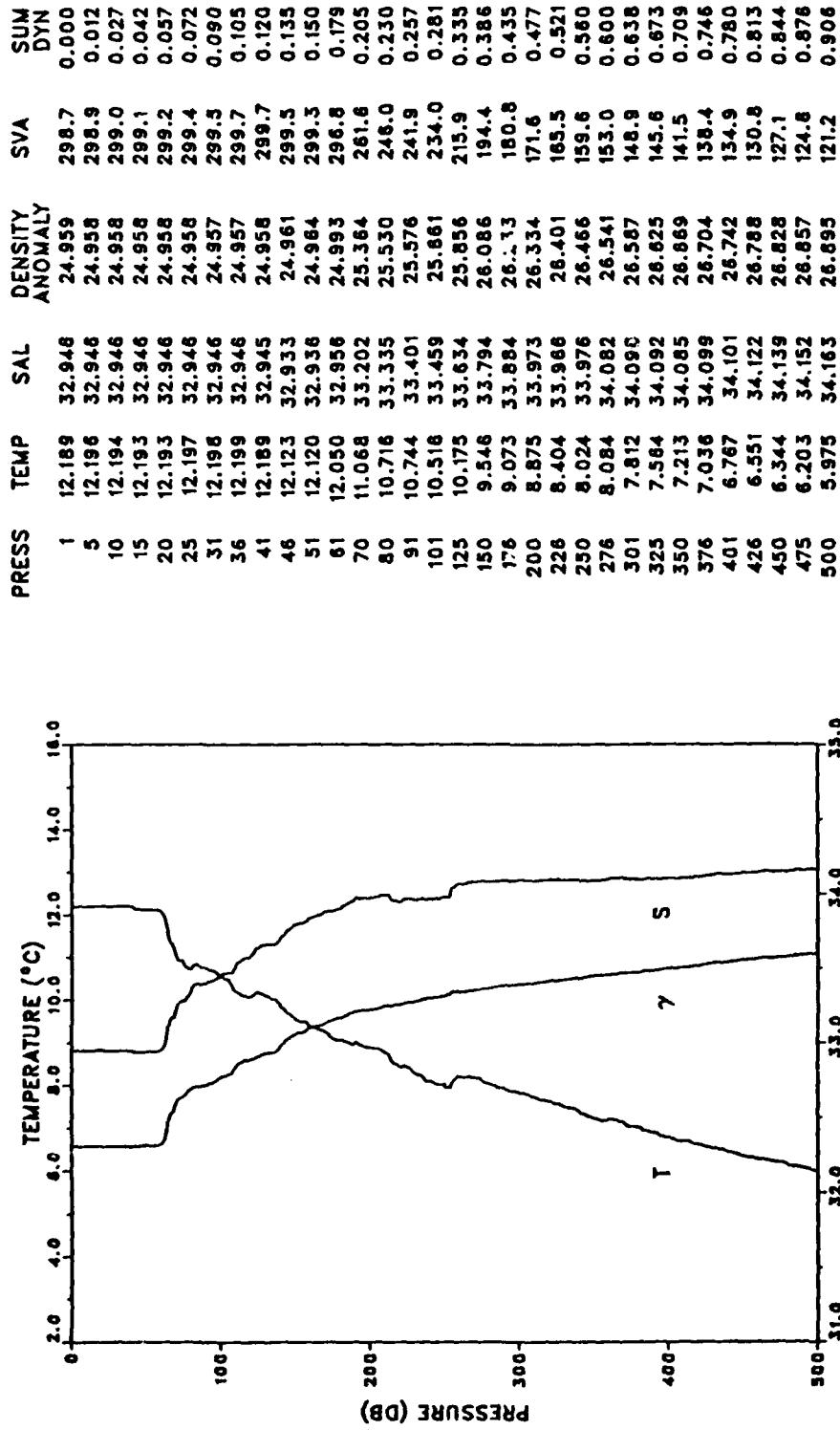
Figure 21. Vertical profiles of temperature, salinity, and density anomaly for all CTD stations of cruise CTZ1, with listing of selected data points.

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.241	32.991	24.984	296.3	0.000
5	12.242	32.992	24.985	296.3	0.012
10	12.240	32.999	24.991	295.9	0.027
15	12.224	33.006	24.999	295.2	0.041
20	12.171	33.011	25.013	294.0	0.056
26	12.122	33.019	25.028	292.7	0.074
31	12.124	33.033	25.039	291.6	0.088
36	12.110	33.048	25.053	290.5	0.103
41	12.103	33.049	25.055	290.4	0.117
46	12.087	33.066	25.071	289.0	0.132
50	12.070	33.072	25.079	288.3	0.143
60	12.373	33.230	25.144	282.4	0.172
71	12.116	33.348	25.285	269.3	0.202
81	11.517	33.442	25.469	251.9	0.228
90	11.088	33.522	25.609	238.7	0.251
100	10.581	33.612	25.769	223.7	0.274
125	9.909	33.751	25.992	202.9	0.327
151	9.479	33.816	26.114	191.7	0.378
176	9.032	33.898	26.250	179.1	0.425
200	8.506	33.949	26.357	169.3	0.466
226	8.412	34.029	26.450	160.9	0.509
251	8.311	34.071	26.498	156.7	0.549
276	7.957	34.075	26.554	151.7	0.588
301	7.797	34.117	26.610	146.7	0.625
326	7.517	34.114	26.649	143.3	0.661
351	7.379	34.125	26.677	140.9	0.697
375	7.133	34.121	26.708	138.1	0.730
401	6.794	34.120	26.754	133.9	0.766
426	6.515	34.125	26.795	130.1	0.799
450	6.316	34.153	26.843	125.7	0.829
475	6.158	34.167	26.874	122.9	0.860
500	5.939	34.167	26.902	120.4	0.891



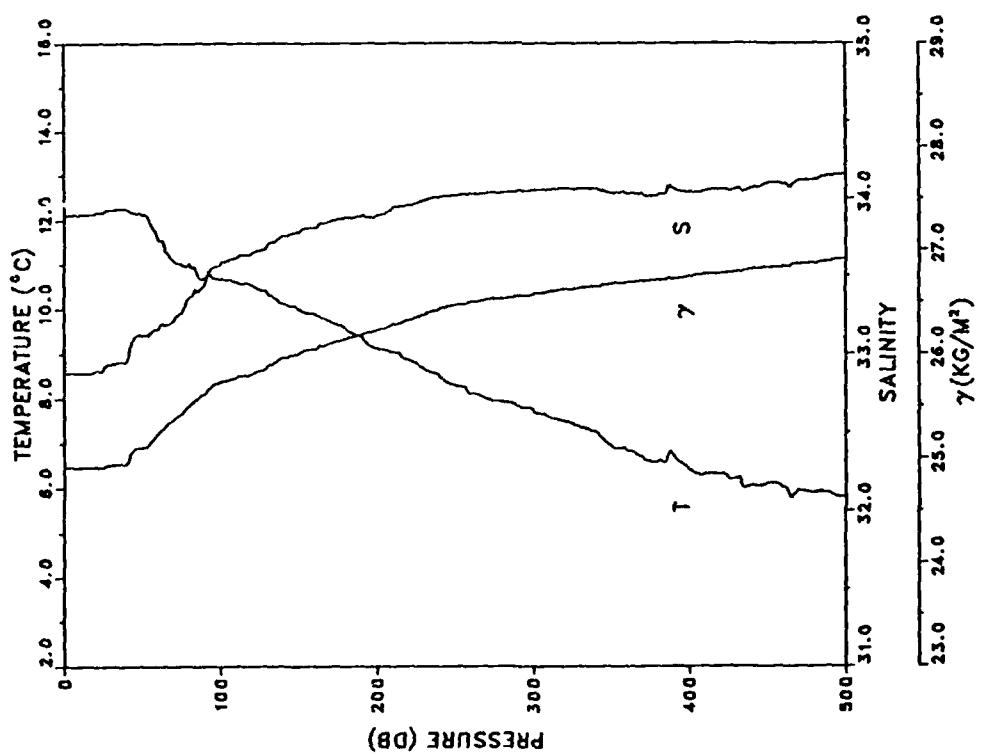
STATION: 1 LAT: 37 37.9 N LON: 123 54.3 W
DATE: 3/18/87 TIME: 0600Z



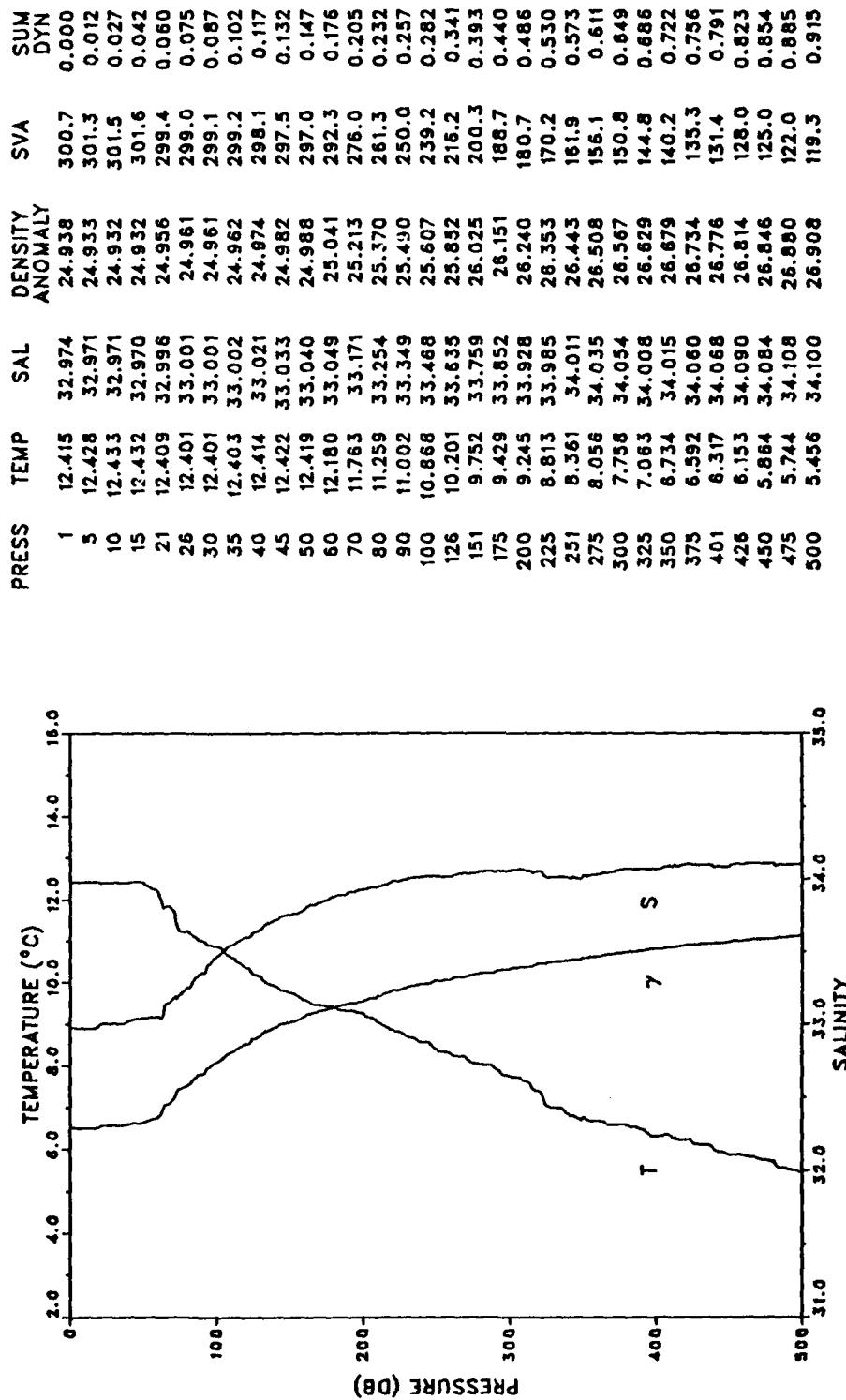


STATION: 3 LAT: 37 52.9 N LON: 124 3.7 W
DATE: 3/18/87 TIME: 0906Z

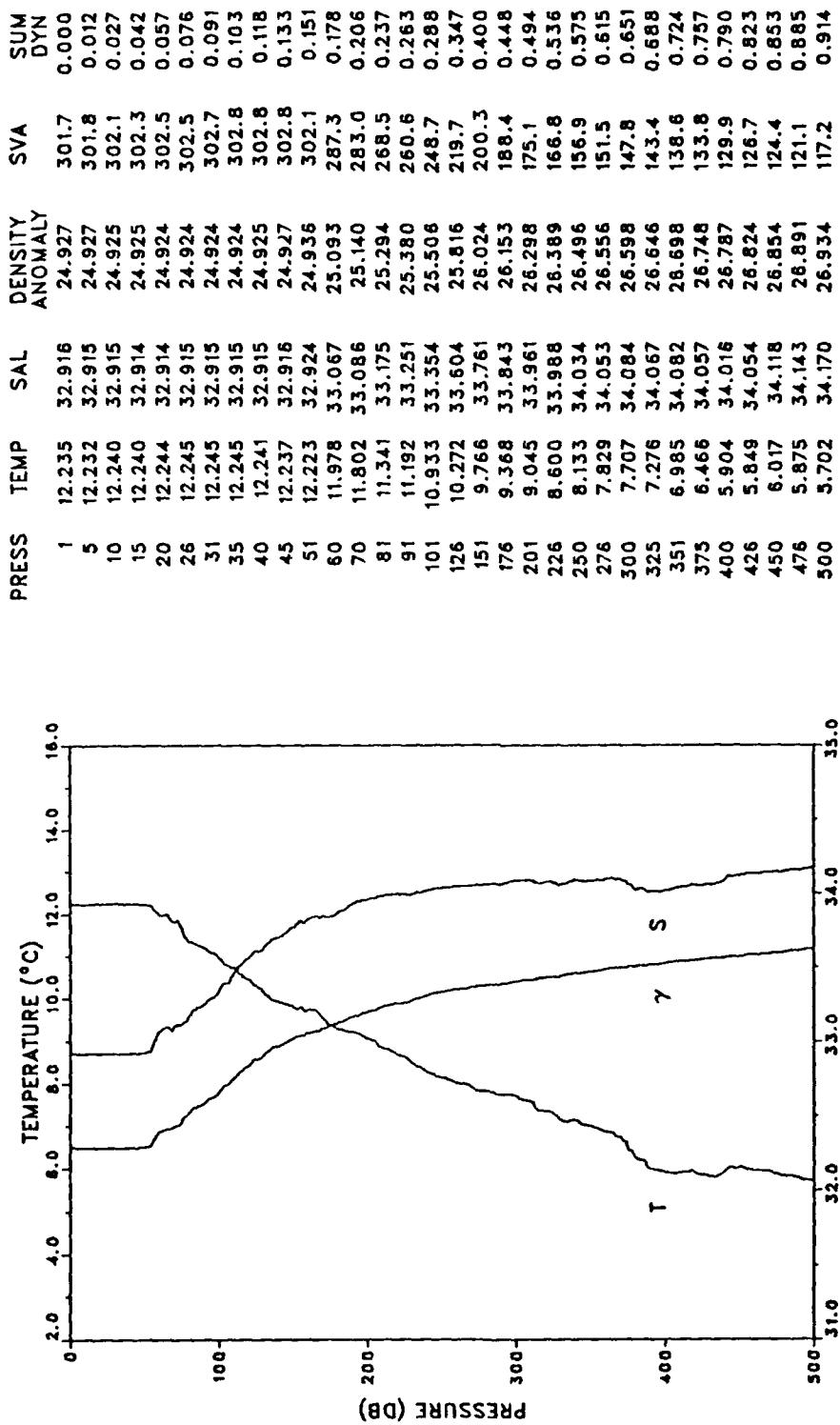
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.114	32.873	24.917	302.7	0.000
5	12.114	32.873	24.917	302.8	0.012
10	12.125	32.874	24.915	303.1	0.027
15	12.129	32.875	24.915	303.2	0.042
20	12.147	32.885	24.920	302.9	0.058
25	12.169	32.895	24.920	303.0	0.073
31	12.250	32.937	24.944	300.8	0.091
36	12.258	32.942	24.943	301.0	0.106
40	12.261	32.946	24.945	300.9	0.118
45	12.170	33.091	25.075	288.6	0.133
50	12.120	33.115	25.103	286.1	0.147
61	11.534	33.161	25.248	272.5	0.178
70	11.087	33.207	25.364	261.6	0.202
81	10.968	33.364	25.508	248.2	0.230
91	10.706	33.453	25.623	237.4	0.254
100	10.662	33.572	25.724	228.0	0.275
125	10.432	33.662	25.834	218.0	0.331
151	9.990	33.784	26.005	202.3	0.385
175	9.648	33.864	26.124	191.3	0.433
201	9.111	33.889	26.231	181.5	0.481
226	8.774	33.965	26.344	171.1	0.525
251	8.275	34.019	26.463	160.1	0.567
276	7.940	34.034	26.524	154.5	0.606
300	7.749	34.048	26.563	151.1	0.643
325	7.441	34.061	26.618	146.1	0.680
350	6.925	34.034	26.888	141.3	0.716
375	6.583	34.015	26.699	158.5	0.751
400	6.401	34.035	26.739	134.9	0.785
426	6.194	34.047	26.775	131.7	0.819
450	6.104	34.096	26.825	127.2	0.851
475	5.921	34.115	26.853	123.7	0.882
500	5.804	34.153	26.908	119.7	0.912



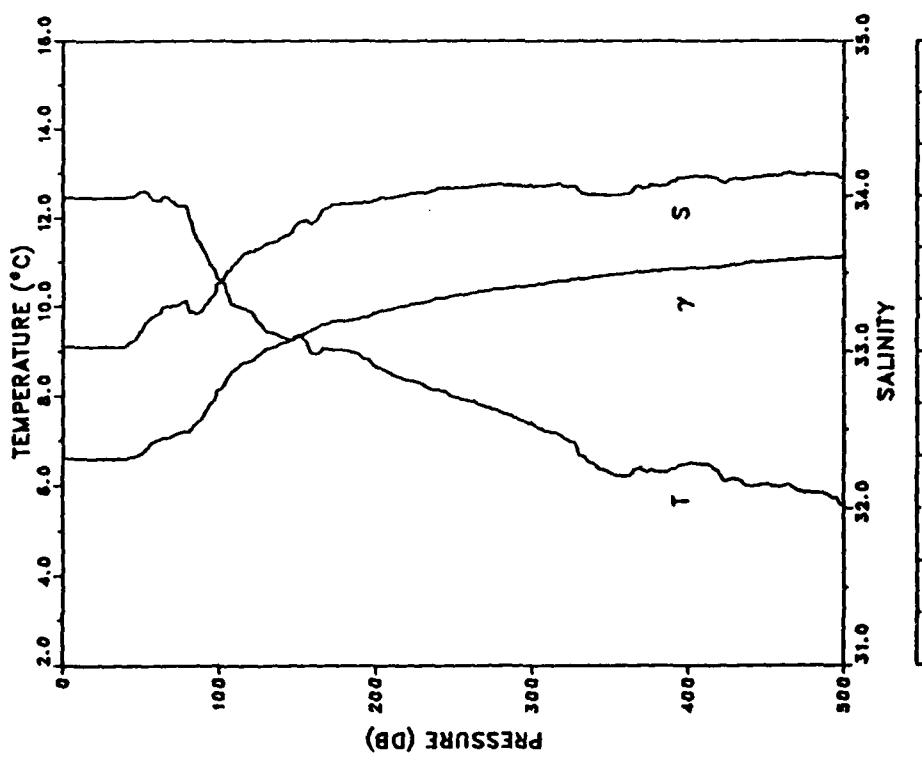
STATION: 4 LAT: 37 59.2 N LON: 124 8.0 W
DATE: 3/18/87 TIME: 1023Z



STATION: 5 LAT: 38 6.9 N LON: 124 10.1 W
DATE: 3/18/87 TIME: 1148Z

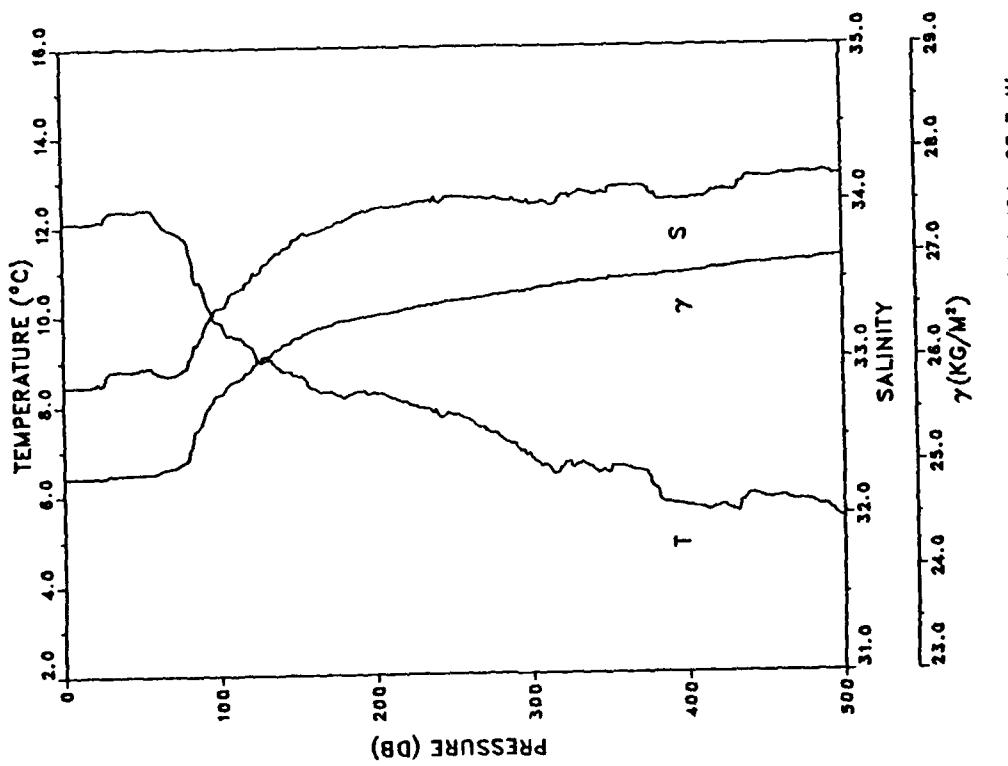


PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.454	33.029	24.973	297.4	0.000
5	12.457	33.030	24.973	297.4	0.012
11	12.459	33.029	24.972	297.7	0.030
15	12.458	33.028	24.971	297.8	0.042
20	12.459	33.027	24.971	298.0	0.057
25	12.460	33.027	24.970	298.2	0.071
31	12.462	33.030	24.972	298.1	0.089
35	12.460	33.028	24.971	298.3	0.101
40	12.461	33.028	24.971	298.5	0.116
45	12.501	33.065	24.992	296.6	0.131
51	12.596	33.131	25.025	293.6	0.149
60	12.398	33.233	25.142	282.7	0.175
70	12.382	33.290	25.189	278.4	0.203
80	12.181	33.293	25.230	274.7	0.230
91	11.226	33.285	25.400	258.6	0.260
101	10.591	33.436	25.630	236.9	0.285
125	9.647	33.654	25.960	205.9	0.338
151	9.317	33.826	26.148	188.4	0.389
176	9.028	33.945	26.288	175.6	0.434
200	8.042	33.974	26.371	168.0	0.476
226	6.302	34.020	26.459	160.0	0.518
250	7.984	34.048	26.532	153.4	0.558
276	7.689	34.072	26.591	148.0	0.595
301	7.345	34.056	26.627	144.8	0.632
326	6.975	34.084	26.685	139.4	0.667
351	8.267	34.004	26.732	134.9	0.701
375	6.308	34.053	26.763	132.1	0.734
401	6.486	34.122	26.796	129.6	0.768
425	6.113	34.093	26.822	127.2	0.796
451	6.034	34.130	26.861	123.8	0.831
475	5.644	34.130	26.865	121.6	0.860
500	5.352	34.124	26.916	118.7	0.890



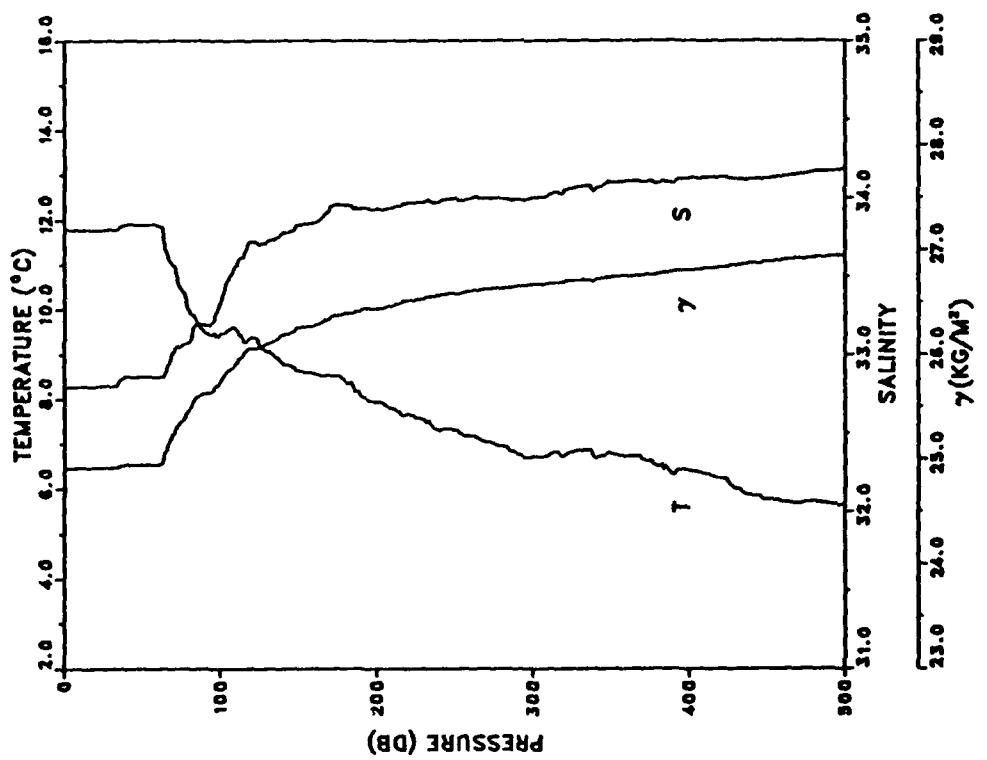
STATION: 7 LAT: 38 21.4 N LON: 124 21.8 W
DATE: 3/18/87 TIME: 1500Z

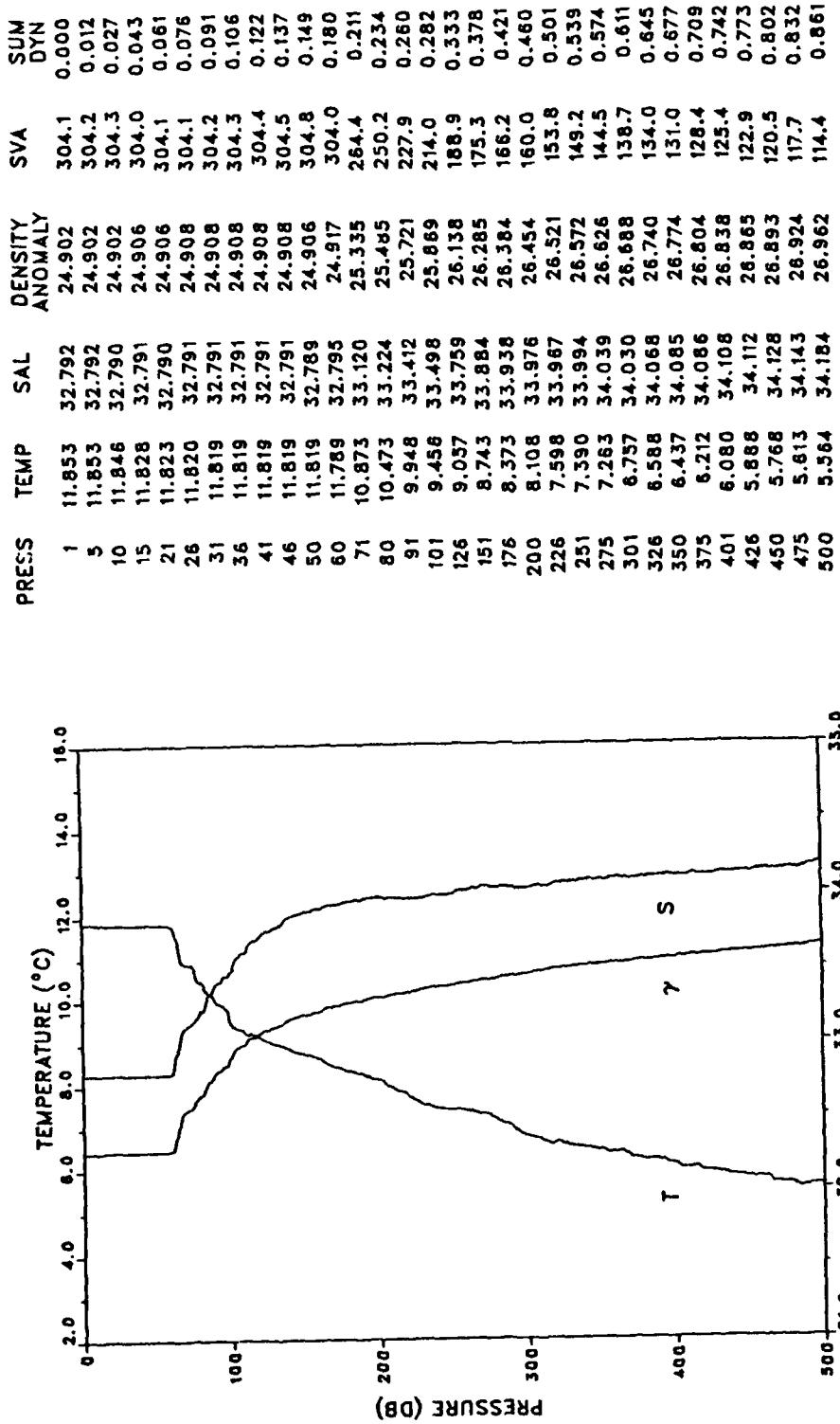
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.097	32.840	24.894	304.9	0.000
5	12.097	32.840	24.894	305.0	0.012
10	12.090	32.840	24.896	304.9	0.027
15	12.094	32.840	24.895	305.1	0.043
21	12.121	32.848	24.896	305.2	0.061
26	12.154	32.862	24.901	304.8	0.076
30	12.351	32.938	24.922	302.9	0.088
35	12.359	32.937	24.920	303.2	0.104
40	12.356	32.937	24.920	303.3	0.119
46	12.342	32.938	24.924	303.1	0.137
50	12.396	32.953	24.925	303.0	0.149
61	12.154	32.920	24.946	301.3	0.182
71	11.891	32.915	24.991	297.2	0.212
81	11.413	33.015	25.156	281.6	0.241
91	10.430	33.210	25.482	250.8	0.268
100	9.851	33.337	25.679	232.1	0.289
125	8.985	33.557	25.991	202.8	0.344
150	8.655	33.774	26.212	182.2	0.392
176	8.204	33.874	26.359	168.5	0.438
200	8.251	33.964	26.423	162.9	0.477
226	7.956	34.003	26.498	156.2	0.519
251	7.755	34.035	26.552	151.3	0.557
276	7.335	34.019	26.600	147.0	0.595
301	6.784	33.988	26.654	141.9	0.631
325	6.663	34.038	26.707	137.2	0.664
350	6.432	34.054	26.750	133.3	0.698
375	6.370	34.077	26.776	131.1	0.731
401	5.693	34.015	26.813	127.4	0.765
426	5.632	34.072	26.865	122.7	0.796
451	5.868	34.149	26.897	120.2	0.826
476	5.813	34.176	26.925	117.8	0.856
500	5.426	34.165	26.963	114.1	0.884



STATION: 8 LAT: 38 28.9 N LON: 124 25.5 W
DATE: 3/18/87 TIME: 1630Z

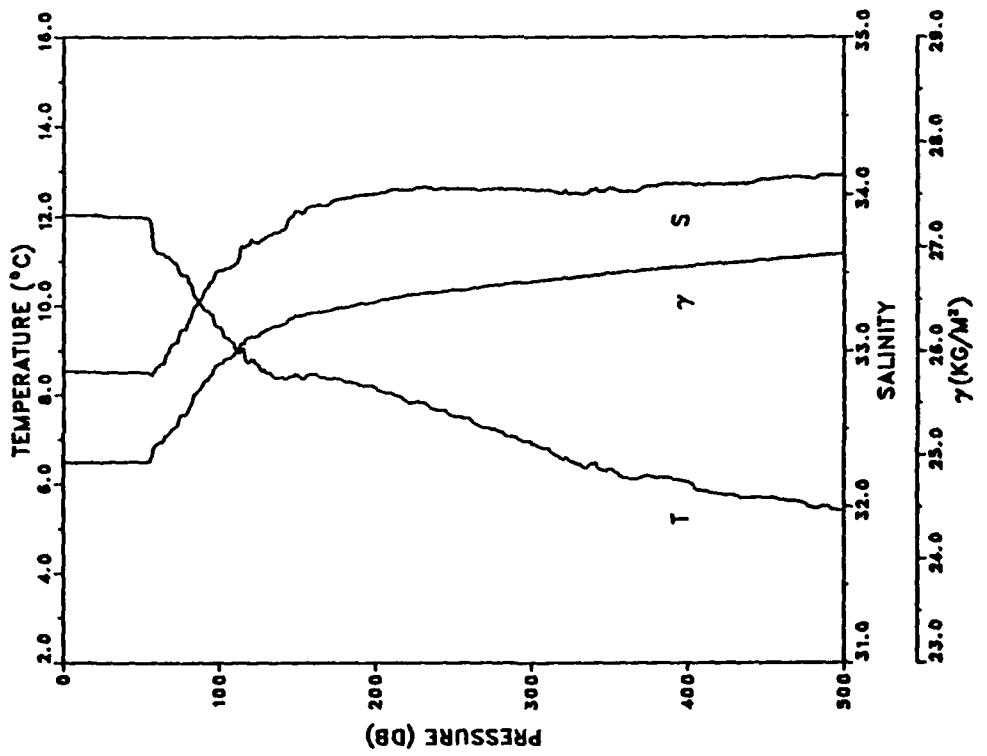
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.786	32.793	24.916	302.8	0.000
6	11.781	32.793	24.-17	302.8	0.015
10	11.780	32.794	24.918	302.8	0.027
15	11.778	32.792	24.916	303.1	0.045
21	11.780	32.794	24.918	303.1	0.061
26	11.781	32.795	24.918	303.1	0.076
31	11.787	32.793	24.920	303.0	0.091
35	11.823	32.825	24.934	301.9	0.103
40	11.897	32.854	24.942	301.1	0.118
45	11.896	32.857	24.945	301.0	0.133
51	11.893	32.857	24.946	301.1	0.151
61	11.864	32.855	24.949	300.9	0.181
70	10.976	33.009	25.230	274.3	0.207
80	9.976	33.070	25.450	253.5	0.234
90	9.497	33.189	25.621	237.3	0.258
100	9.481	33.327	25.732	227.0	0.281
125	9.206	33.696	26.065	195.9	0.334
150	8.819	33.824	26.257	177.9	0.381
175	8.505	33.952	26.375	167.2	0.426
200	7.936	33.927	26.441	161.1	0.465
225	7.575	33.987	26.525	153.4	0.504
250	7.312	33.991	26.581	148.4	0.542
276	6.991	33.991	26.625	144.4	0.580
301	6.719	33.997	26.667	140.5	0.616
325	6.517	34.058	26.702	137.7	0.649
350	6.783	34.097	26.737	134.7	0.683
375	6.634	34.104	26.763	132.6	0.717
401	6.413	34.122	26.806	128.7	0.751
426	6.118	34.121	26.843	125.2	0.782
450	5.762	34.119	26.886	121.1	0.812
476	5.711	34.154	26.920	118.2	0.843
500	5.646	34.177	26.946	115.9	0.871





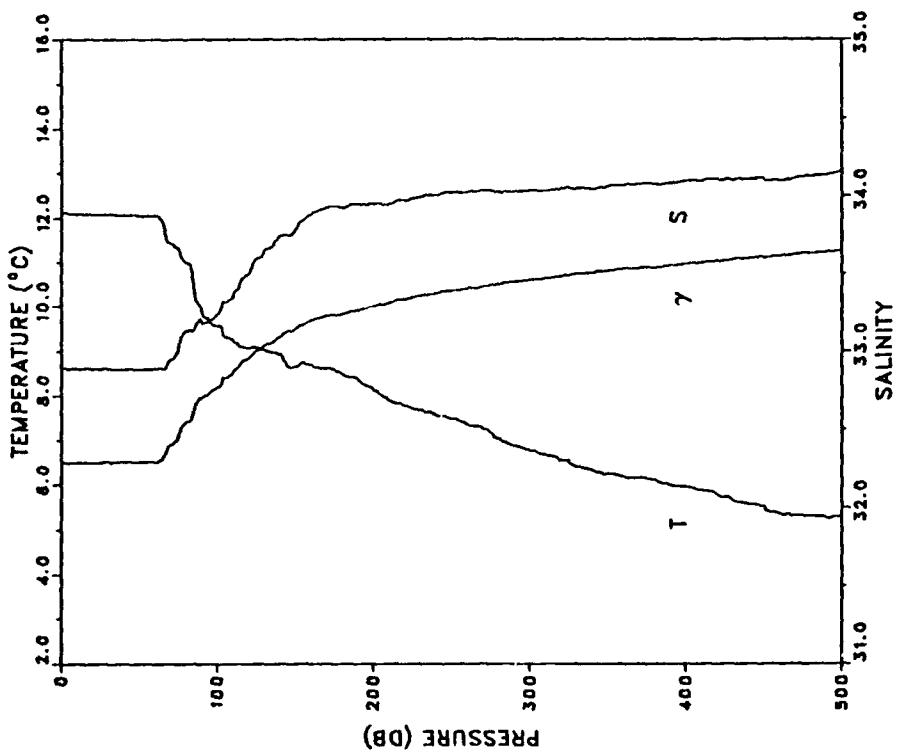
STATION: 10 LAT: 38 43.0 N LON: 124 36.9 W
DATE: 3/18/87 TIME: 1930Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.034	32.884	24.925	302.0	0.000
6	12.030	32.884	24.925	302.0	0.015
10	12.029	32.862	24.924	302.2	0.027
15	12.032	32.863	24.924	302.3	0.042
20	12.022	32.863	24.926	302.3	0.057
25	12.019	32.861	24.925	302.5	0.073
31	12.001	32.861	24.929	302.3	0.091
35	11.999	32.861	24.929	302.3	0.103
41	11.995	32.862	24.930	302.3	0.121
46	11.987	32.861	24.931	302.3	0.136
50	11.983	32.862	24.933	302.3	0.148
61	11.183	32.901	25.109	285.7	0.180
70	11.010	33.040	25.248	272.6	0.206
81	10.523	33.207	25.463	252.3	0.234
90	9.940	33.384	25.635	231.4	0.256
101	9.515	33.519	25.876	213.3	0.281
125	8.662	33.689	26.145	188.1	0.329
150	8.453	33.888	26.333	170.7	0.374
176	8.360	33.966	26.408	164.0	0.417
200	8.148	33.999	26.466	158.8	0.456
226	7.846	34.040	26.543	151.9	0.496
250	7.523	34.034	26.585	148.1	0.532
276	7.218	34.033	26.627	144.3	0.570
300	6.925	34.027	26.663	141.1	0.605
325	6.504	34.008	26.704	137.3	0.639
351	6.344	34.036	26.747	133.5	0.675
376	6.182	34.048	26.777	130.8	0.708
401	6.041	34.067	26.810	127.9	0.740
426	5.765	34.067	26.845	124.7	0.772
450	5.696	34.092	26.873	122.3	0.801
475	5.583	34.107	26.901	119.8	0.831
500	5.413	34.125	26.933	116.9	0.861



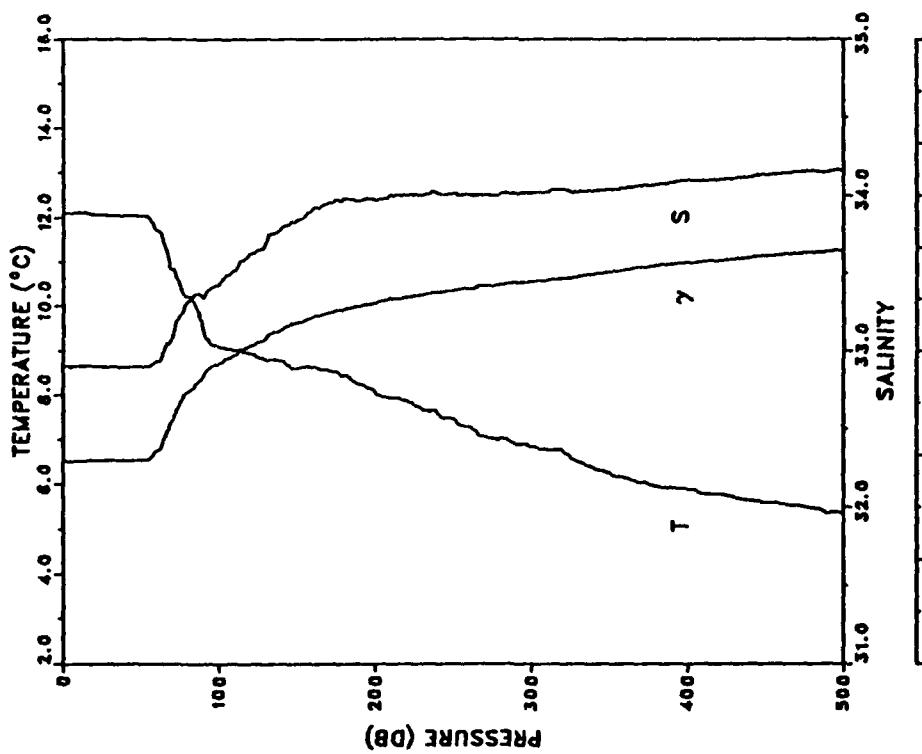
STATION: 11 LAT: 38 50.1 N LON: 124 39.4 W
DATE: 3/18/87 TIME: 2053Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.109	32.888	24.929	301.5	0.000
6	12.095	32.887	24.931	301.5	0.015
11	12.092	32.887	24.932	301.5	0.030
15	12.083	32.888	24.934	301.4	0.042
20	12.085	32.887	24.933	301.5	0.057
26	12.080	32.887	24.934	301.6	0.075
31	12.076	32.887	24.935	301.7	0.090
35	12.074	32.886	24.934	301.8	0.103
40	12.064	32.884	24.935	301.9	0.118
45	12.060	32.885	24.936	301.9	0.133
50	12.056	32.883	24.935	302.0	0.148
61	12.048	32.888	24.941	301.8	0.181
71	11.404	32.949	25.107	286.1	0.210
80	10.998	33.129	25.320	266.0	0.235
90	9.965	33.196	25.550	244.2	0.261
100	9.553	33.238	25.650	234.8	0.285
125	9.079	33.596	26.007	201.3	0.339
151	8.650	33.790	26.226	180.9	0.389
175	8.576	33.929	26.346	169.9	0.431
200	8.141	33.944	26.424	162.8	0.473
225	7.711	33.983	26.518	154.1	0.512
251	7.474	34.023	26.383	148.3	0.552
276	7.154	34.028	26.632	143.8	0.588
300	6.772	34.031	26.687	138.8	0.622
325	6.544	34.051	26.733	134.6	0.656
350	6.257	34.062	26.779	130.4	0.689
375	6.138	34.078	26.607	128.0	0.722
400	5.955	34.096	26.844	124.6	0.753
425	5.733	34.102	26.876	121.7	0.784
450	5.531	34.109	26.907	119.0	0.814
476	5.301	34.122	26.944	115.5	0.845
500	5.294	34.153	26.970	113.3	0.872

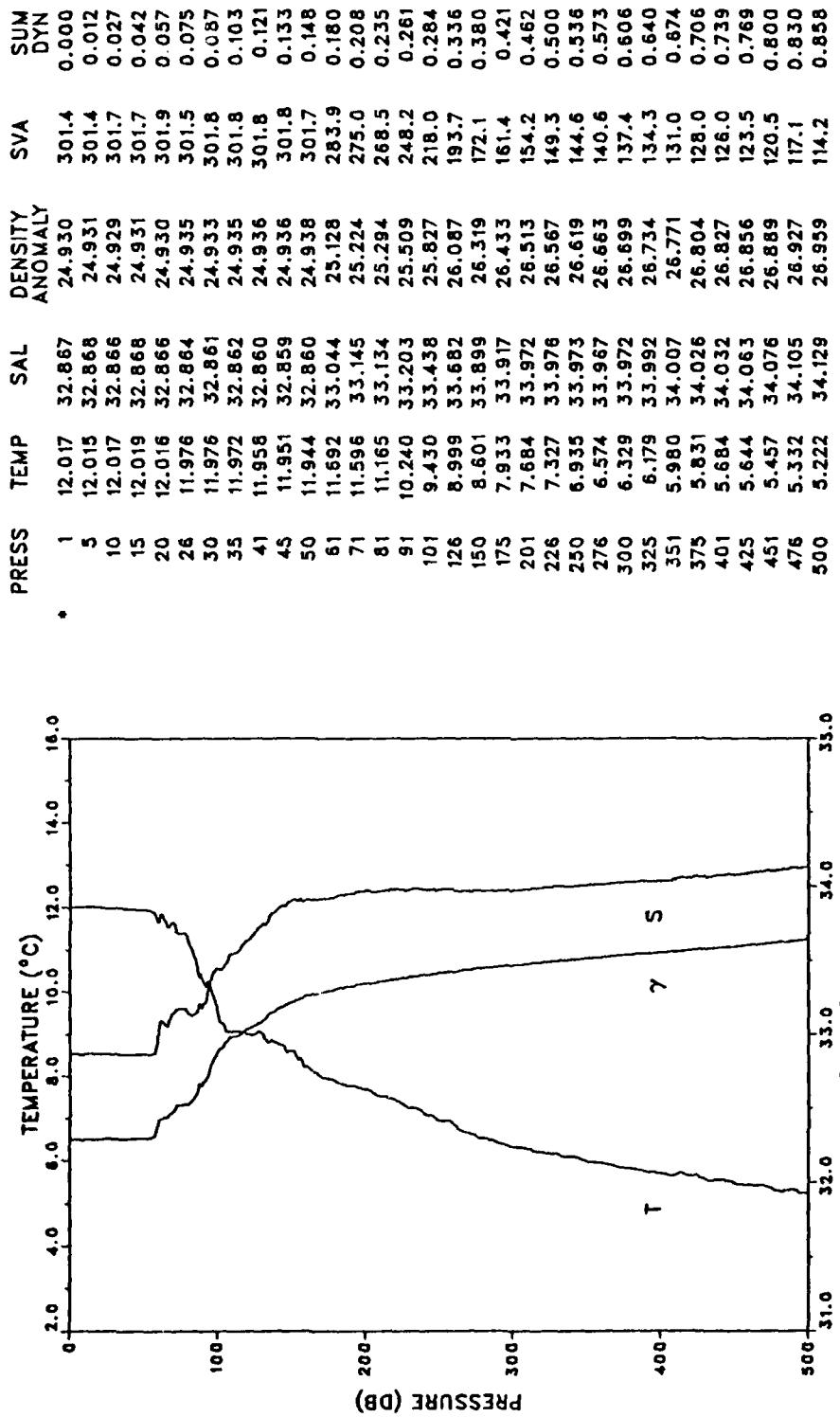


STATION: 12 LAT: 38 57.4 N LON: 124 44.0 W
DATE: 3/18/87 TIME: 2218Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.104	32.898	24.938	300.7	0.000
6	12.106	32.898	24.938	300.9	0.015
11	12.111	32.900	24.938	300.9	0.030
15	12.101	32.899	24.939	300.9	0.042
21	12.071	32.899	24.945	300.5	0.060
25	12.063	32.897	24.945	300.6	0.072
31	12.056	32.897	24.946	300.6	0.090
36	12.050	32.896	24.946	300.7	0.105
41	12.044	32.897	24.948	300.6	0.120
45	12.041	32.896	24.948	300.7	0.132
51	12.034	32.897	24.950	300.6	0.150
61	11.703	32.930	25.037	292.5	0.180
71	10.849	33.126	25.344	263.5	0.208
81	10.207	33.323	25.608	238.5	0.233
91	9.307	33.347	25.775	222.7	0.256
100	9.084	33.432	25.877	213.1	0.276
126	8.837	33.652	26.089	193.5	0.326
150	8.597	33.839	26.272	176.5	0.373
176	8.518	33.970	26.387	166.0	0.417
200	8.074	33.970	26.454	159.9	0.456
225	7.749	34.005	26.529	153.1	0.496
251	7.451	34.012	26.578	148.7	0.535
275	7.025	33.997	26.625	144.4	0.570
301	6.847	34.016	26.666	140.8	0.607
326	6.581	34.017	26.701	137.7	0.642
350	6.269	34.036	26.757	132.5	0.674
376	5.992	34.062	26.813	127.3	0.708
400	5.894	34.094	26.850	124.0	0.738
426	5.746	34.104	26.876	121.7	0.770
451	5.592	34.130	26.916	118.2	0.800
475	5.497	34.152	26.945	115.6	0.828
500	5.354	34.161	26.969	113.5	0.857

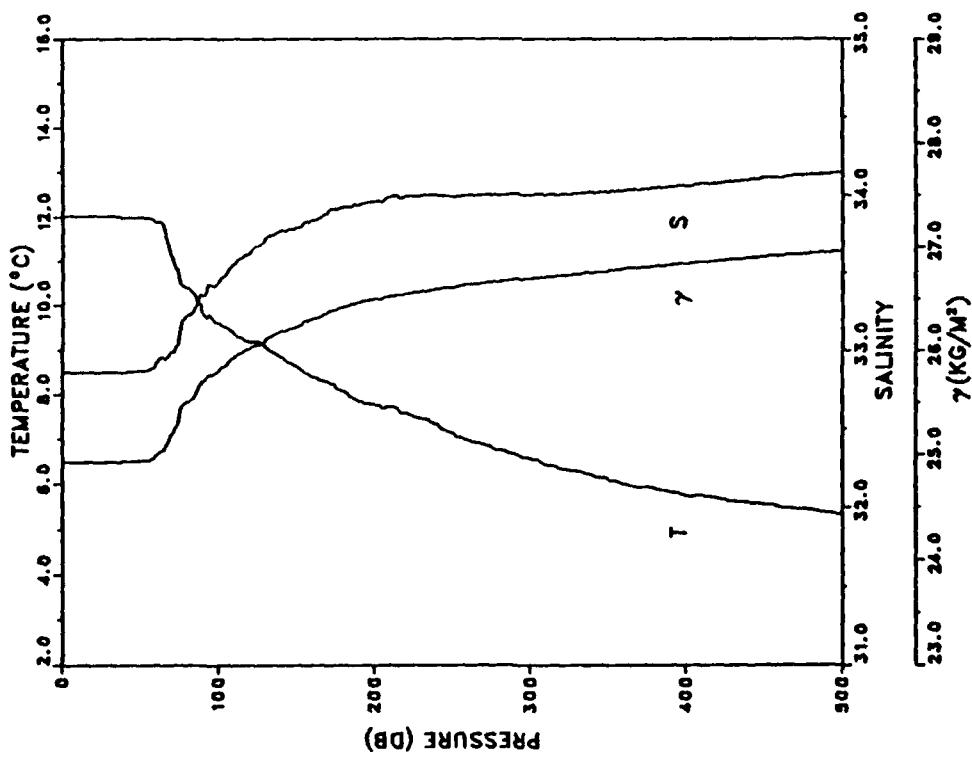


STATION: 13 LAT: 38 53.2 N LON: 124 53.6 W
DATE: 3/18/87 TIME: 2330Z

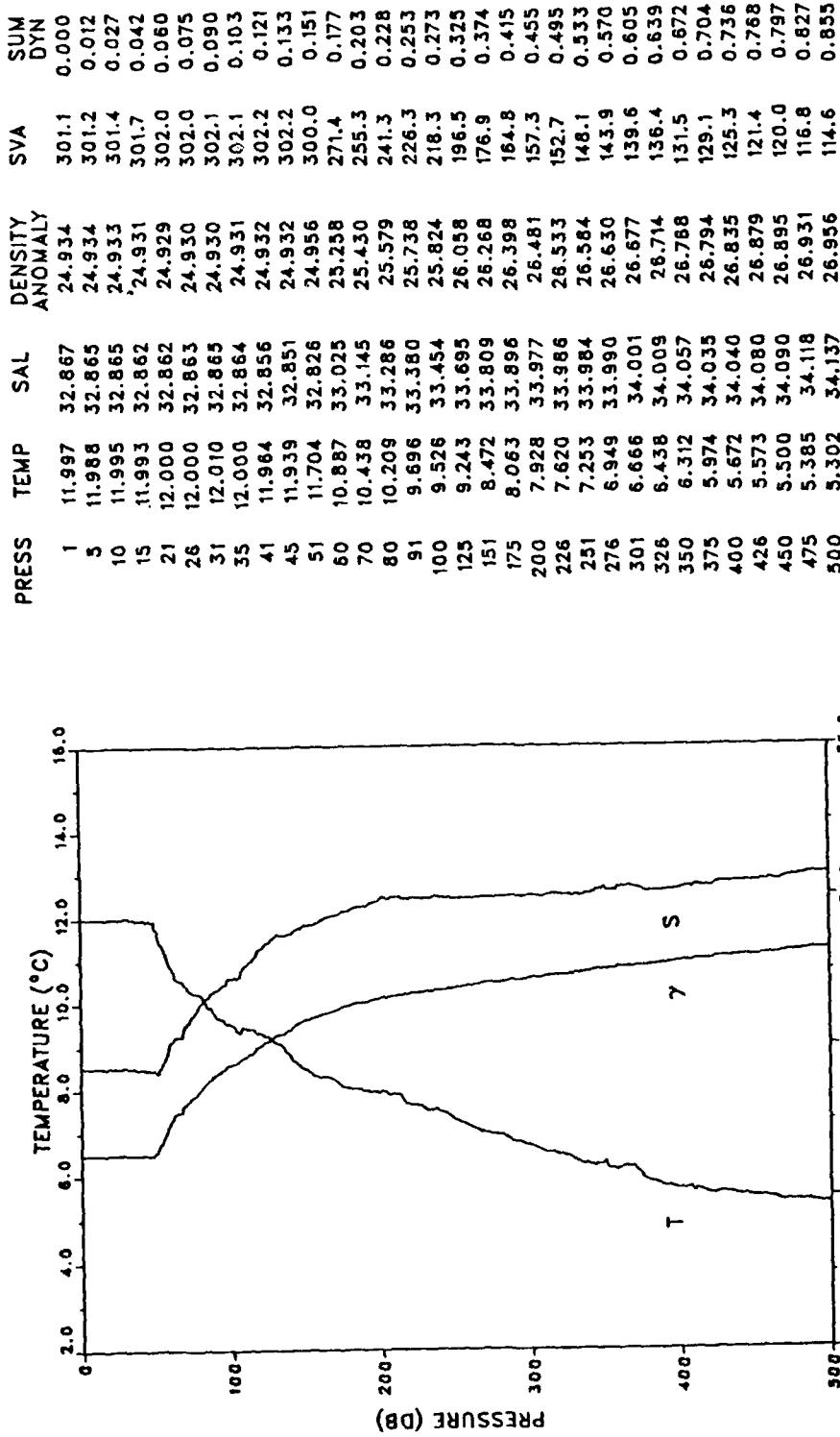


STATION: 14 LAT: 38 50.4 N LON: 125 1.1 W
DATE: 3/19/87 TIME: 0047Z

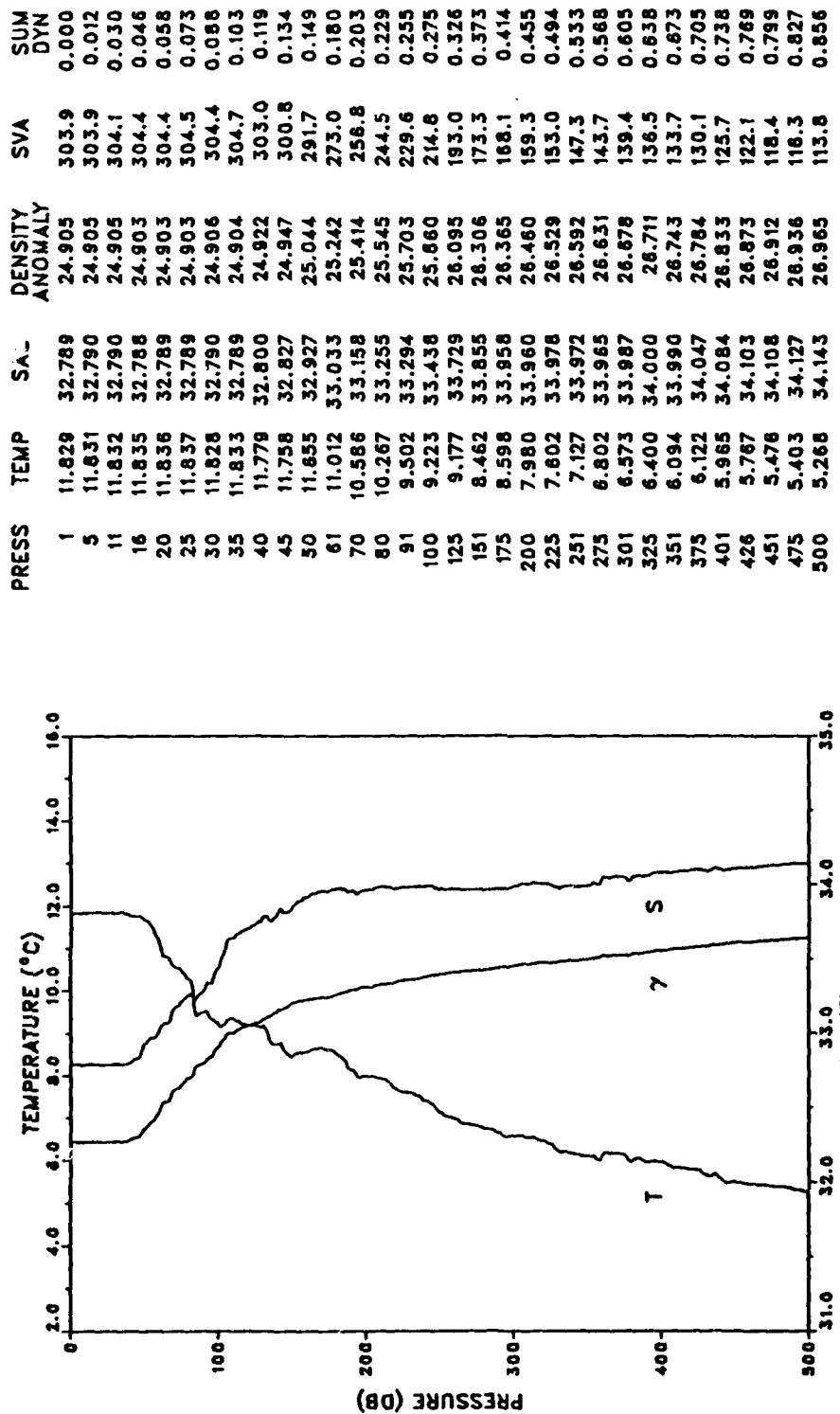
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.006	32.855	24.923	302.1	0.000
6	12.010	32.856	24.923	302.2	0.015
10	12.011	32.855	24.922	302.4	0.027
15	12.010	32.856	24.923	302.4	0.042
20	12.013	32.856	24.922	302.6	0.057
26	12.006	32.855	24.923	302.7	0.076
31	12.007	32.855	24.923	302.8	0.091
36	11.993	32.856	24.926	302.6	0.106
40	11.982	32.857	24.929	302.4	0.118
45	11.977	32.860	24.932	302.2	0.133
51	11.981	32.864	24.935	302.1	0.151
61	11.882	32.924	25.000	296.2	0.181
71	11.089	32.988	25.194	277.8	0.210
81	10.374	33.222	25.501	248.7	0.236
90	9.827	33.351	25.694	230.5	0.258
101	9.576	33.455	25.816	219.0	0.282
125	9.177	33.667	26.047	197.6	0.332
151	8.622	33.785	26.226	180.9	0.382
176	8.154	33.899	26.387	165.9	0.425
200	7.761	33.953	26.487	156.7	0.464
225	7.492	33.988	26.553	150.7	0.502
251	7.121	33.985	26.603	146.2	0.541
276	6.781	33.996	26.658	141.2	0.577
301	6.558	33.999	26.690	138.3	0.612
326	6.307	34.003	26.726	135.1	0.646
350	6.099	34.012	26.760	132.1	0.678
375	5.935	34.038	26.801	128.4	0.710
401	5.749	34.056	26.838	125.0	0.743
426	5.646	34.081	26.870	122.2	0.774
451	5.548	34.109	26.905	119.2	0.804
475	5.454	34.128	26.931	116.9	0.833
500	5.333	34.148	26.961	114.2	0.862

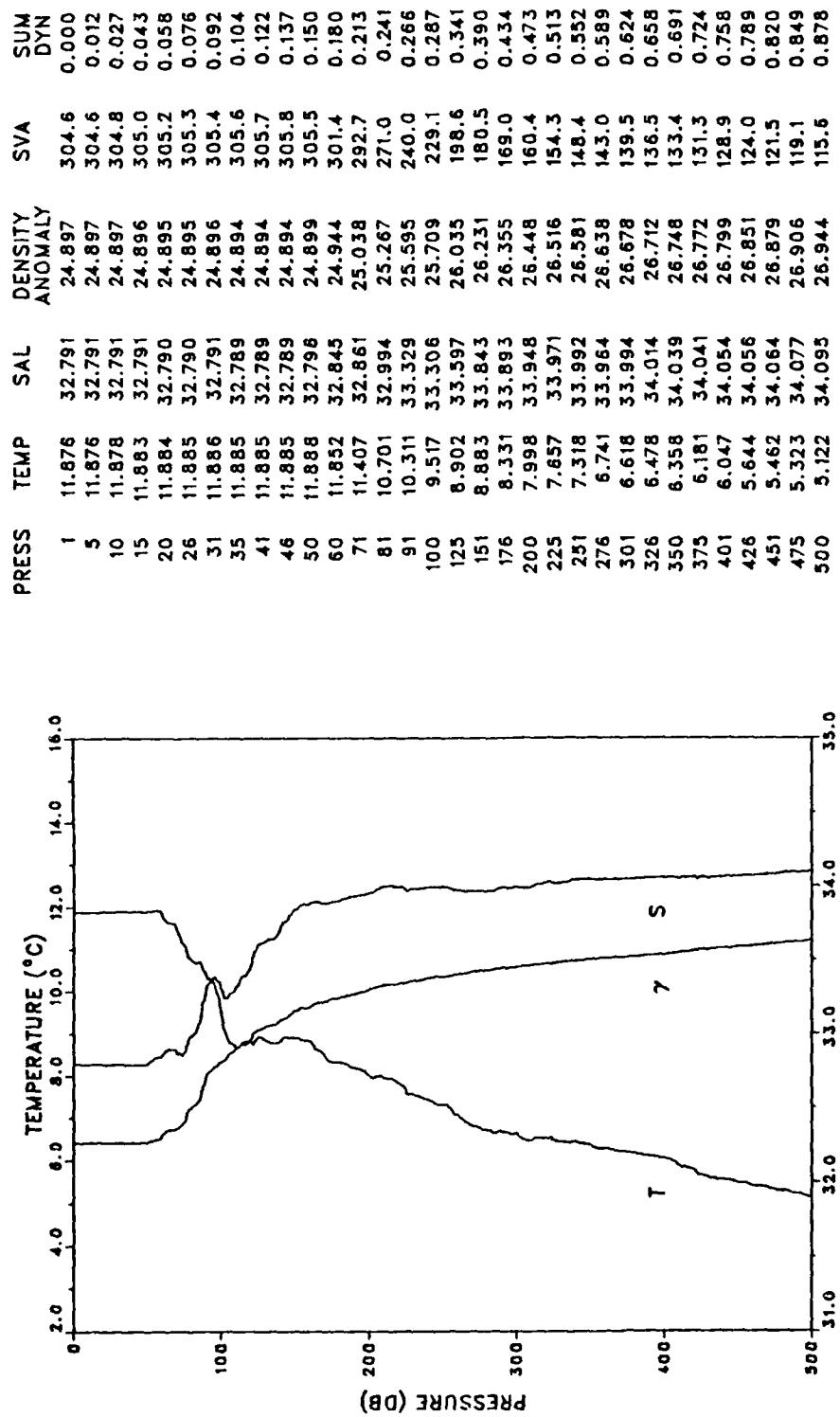


STATION: 15 LAT: 38 47.0 N LON: 125 9.6 W
DATE: 3/19/87 TIME: 0200Z

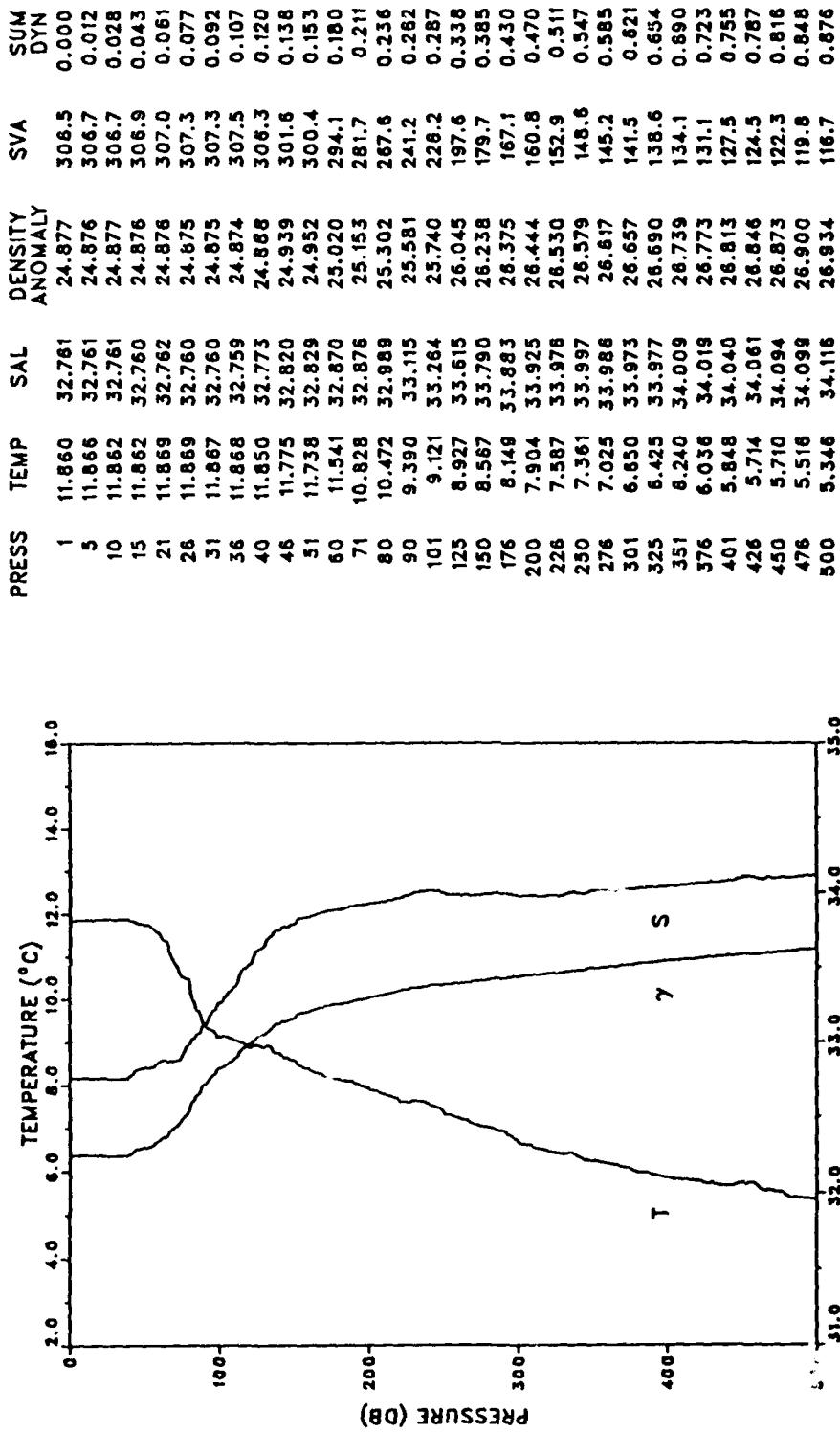


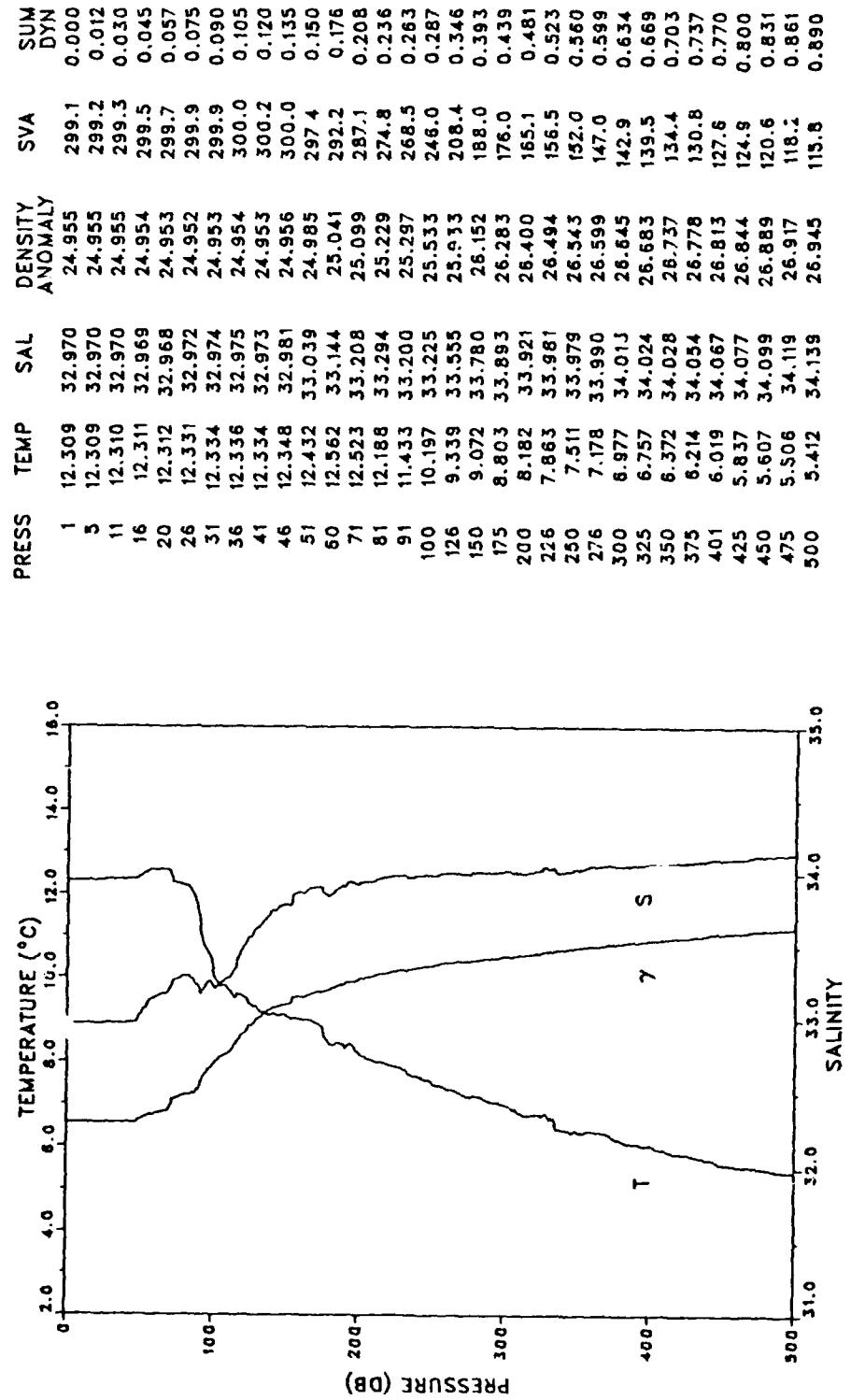
STATION: 16 LAT: 38 43.0 N LON: 125 19.1 W
DATE: 3/19/87 TIME: 0318Z





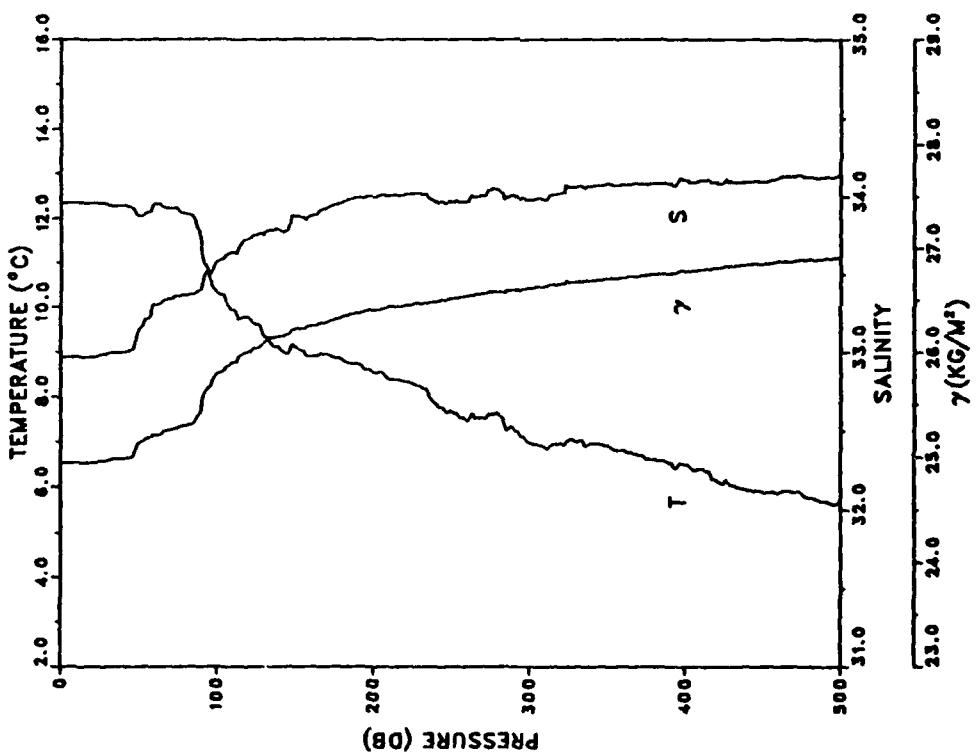
STATION: 18 LAT: 38 28.5 N LON: 125 9.8 W
 DATE: 3/19/87 TIME: 0618Z



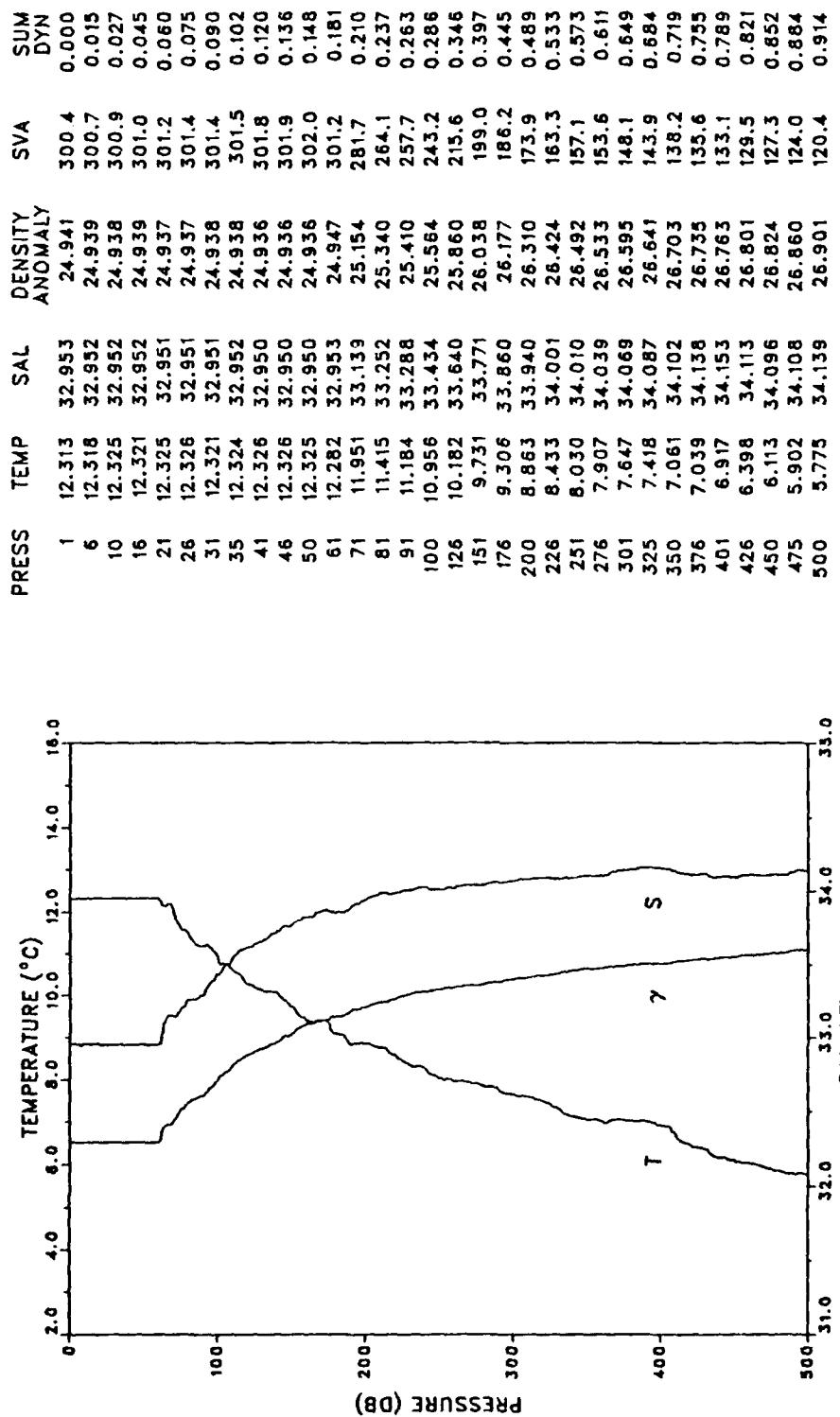


STATION: 20 LAT: 38 14.3 N LON: 124 59.9 W
 DATE: 3/19/87 TIME: 0900Z

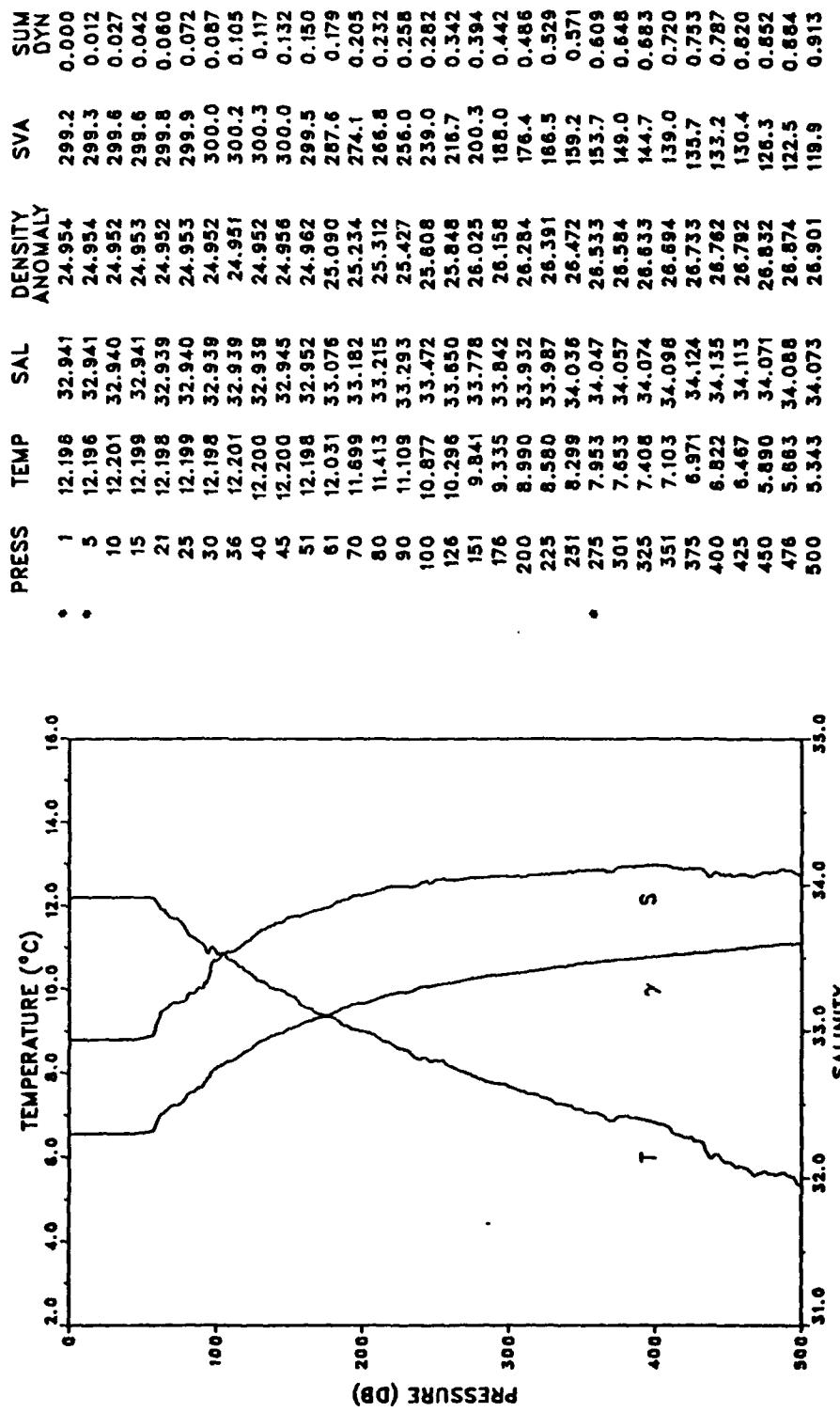
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.354	32.971	24.947	299.8	0.000
6	12.353	32.970	24.947	300.0	0.015
10	12.359	32.971	24.946	300.1	0.027
15	12.356	32.970	24.946	300.3	0.042
20	12.356	32.970	24.946	300.4	0.057
26	12.337	32.982	24.959	299.3	0.075
31	12.312	32.994	24.973	298.0	0.090
36	12.289	32.999	24.981	297.4	0.105
40	12.287	33.000	24.982	297.4	0.117
46	12.238	33.015	25.003	295.5	0.135
50	12.054	33.140	25.135	283.0	0.146
61	12.334	33.306	25.211	276.1	0.177
71	12.227	33.342	25.259	271.7	0.204
80	12.113	33.368	25.301	268.0	0.229
91	11.151	33.441	25.539	245.5	0.257
100	10.318	33.579	25.789	221.8	0.278
125	9.635	33.754	26.040	198.3	0.330
151	9.094	33.872	26.220	181.6	0.380
175	8.878	33.944	26.311	173.4	0.422
200	8.550	33.997	26.403	164.9	0.465
225	8.282	34.015	26.458	160.0	0.505
251	7.639	33.967	26.515	154.7	0.546
276	7.607	34.036	26.574	149.5	0.584
301	6.977	33.881	26.819	145.3	0.621
325	7.057	34.051	26.671	140.8	0.655
350	6.914	34.079	26.705	137.9	0.690
375	6.833	34.051	26.745	134.3	0.724
401	6.507	34.107	26.782	131.0	0.759
426	6.110	34.096	26.825	127.0	0.791
450	5.890	34.097	26.853	124.4	0.821
476	5.826	34.122	26.881	122.0	0.853
500	5.676	34.144	26.917	118.8	0.882



STATION: 21 LAT: 38 7.4 N LON: 124 55.5 W
DATE: 3/19/87 TIME: 1018Z

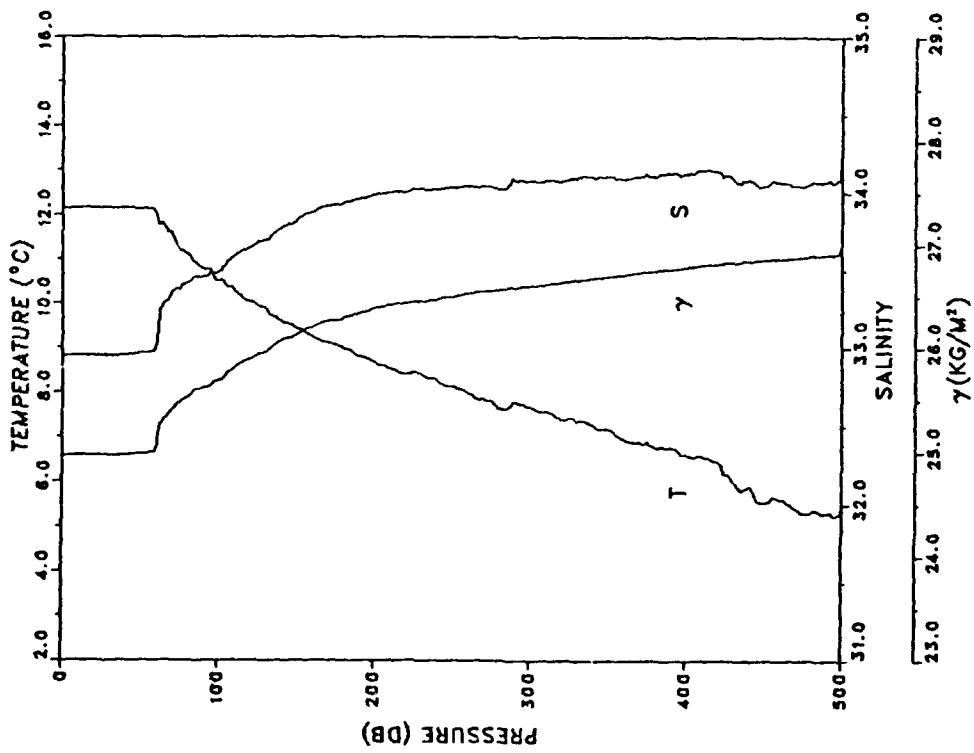


STATION: 22 LAT: 37 59.6 N LON: 124 50.2 W
DATE: 3/19/87 TIME: 1148Z



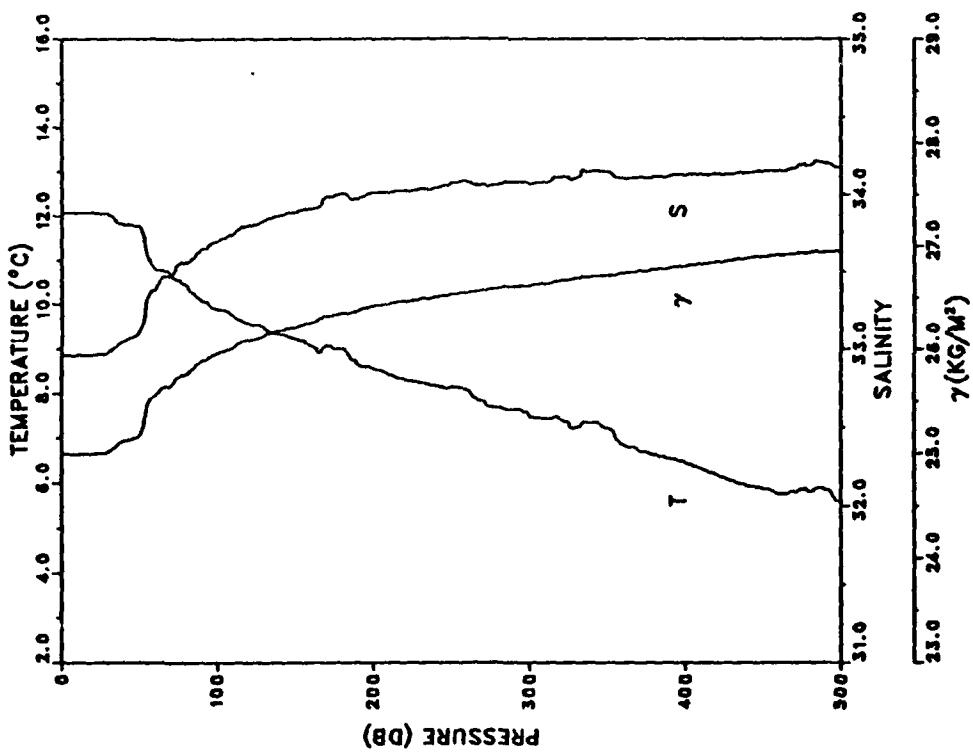
STATION: 23 LAT: 57 52.2 N LON: 124 45.7 W
DATE: 3/19/87 TIME: 1312

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.140	32.949	24.971	297.6	0.000
6	12.148	32.947	24.968	298.0	0.015
10	12.152	32.947	24.967	298.2	0.027
16	12.152	32.948	24.968	298.2	0.045
20	12.151	32.947	24.967	298.4	0.057
25	12.150	32.947	24.967	298.5	0.072
30	12.155	32.948	24.967	298.6	0.086
36	12.153	32.948	24.967	298.7	0.104
40	12.153	32.948	24.967	298.8	0.116
46	12.132	32.960	24.981	297.6	0.134
51	12.124	32.963	24.985	297.4	0.149
60	12.026	32.989	25.023	293.9	0.176
71	11.542	33.363	25.403	258.0	0.206
80	11.114	33.416	25.524	246.7	0.229
91	10.783	33.459	25.614	238.2	0.255
101	10.509	33.492	25.688	231.4	0.279
125	9.943	33.673	25.926	209.2	0.332
151	9.431	33.826	26.130	190.2	0.384
176	9.048	33.919	26.264	177.8	0.430
201	8.643	33.985	26.380	167.2	0.473
226	8.427	34.020	26.440	161.8	0.514
250	8.140	34.030	26.491	157.3	0.552
276	7.798	34.034	26.545	152.4	0.593
300	7.675	34.075	26.595	148.0	0.629
325	7.409	34.085	26.641	143.9	0.665
350	7.182	34.107	26.690	139.5	0.700
376	6.874	34.112	26.737	135.2	0.736
400	6.609	34.122	26.780	131.2	0.768
426	6.167	34.109	26.828	126.7	0.802
450	5.548	34.046	26.855	123.9	0.832
476	5.296	34.047	26.885	121.0	0.864
500	5.382	34.155	26.961	114.3	0.892

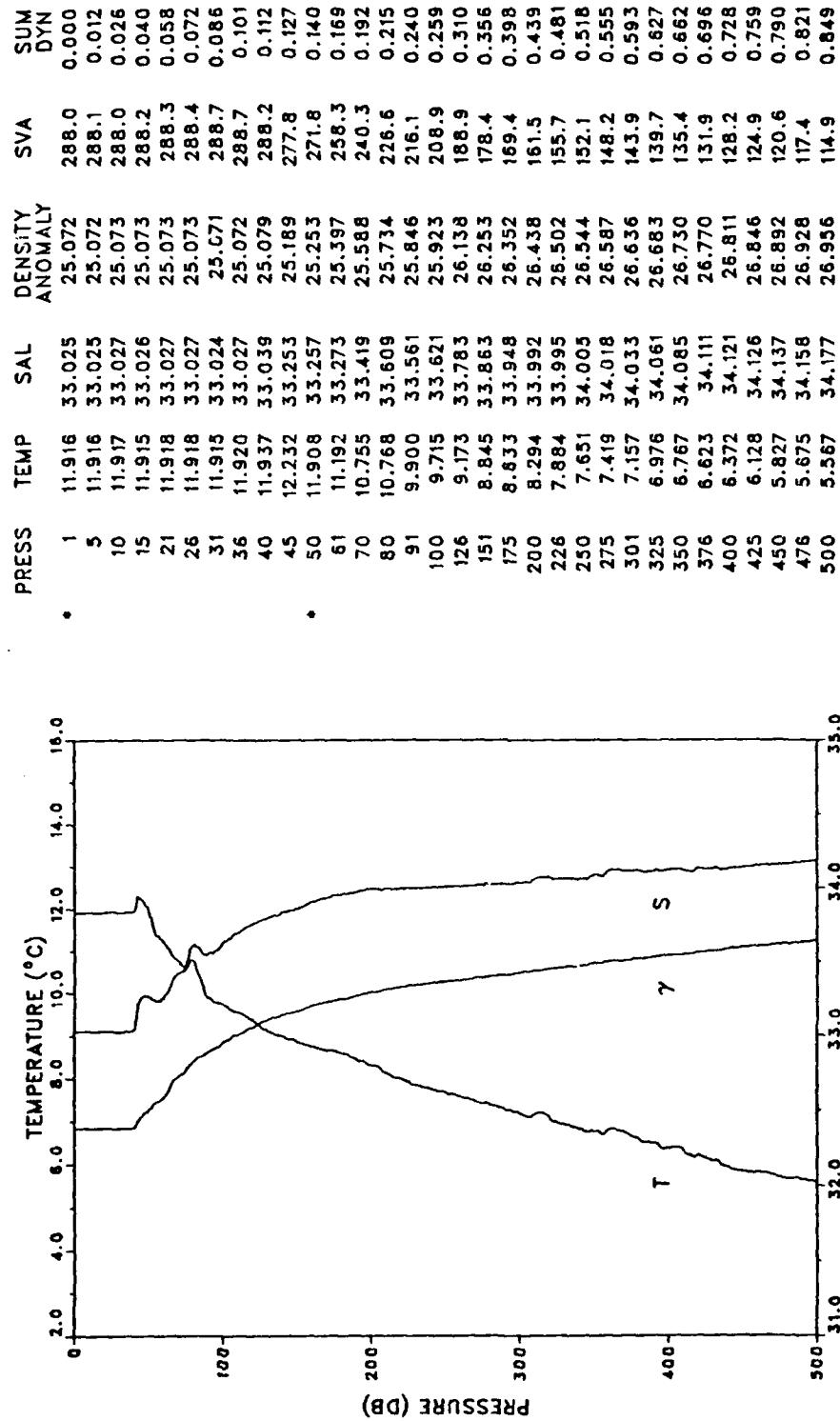


STATION: 24 LAT: 37 45.5 N LON: 124 41.0 W
DATE: 3/19/87 TIME: 1436Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.058	32.955	24.991	295.7	0.000
5	12.058	32.955	24.991	295.8	0.012
10	12.058	32.957	24.992	295.7	0.027
15	12.061	32.956	24.991	296.0	0.041
21	12.059	32.959	24.994	295.8	0.059
26	12.056	32.962	24.997	295.7	0.074
30	12.021	32.975	25.013	294.2	0.086
36	11.838	33.019	25.082	287.8	0.103
41	11.787	33.048	25.112	285.0	0.118
46	11.788	33.076	25.135	282.9	0.132
50	11.757	33.109	25.166	280.0	0.143
61	10.780	33.189	25.360	242.7	0.172
70	10.699	33.471	25.639	235.5	0.193
80	10.430	33.557	25.752	224.8	0.216
90	10.077	33.643	25.880	212.9	0.238
101	9.882	33.701	25.958	205.7	0.261
125	9.537	33.803	26.095	193.1	0.309
151	9.208	33.883	26.211	182.5	0.358
176	8.998	33.992	26.329	171.7	0.402
200	8.546	34.007	26.412	164.1	0.442
225	8.263	34.021	26.486	159.3	0.483
251	8.144	34.072	26.524	154.2	0.524
276	7.997	34.055	26.576	149.4	0.562
300	7.503	34.061	26.609	145.6	0.597
325	7.351	34.110	26.669	141.2	0.633
350	7.223	34.143	26.713	137.4	0.668
375	6.692	34.107	26.757	133.1	0.702
401	6.428	34.124	26.806	128.7	0.736
425	6.120	34.128	26.849	124.7	0.766
450	5.876	34.149	26.896	120.3	0.797
476	5.875	34.195	26.932	117.2	0.828
500	5.592	34.172	26.949	115.6	0.856

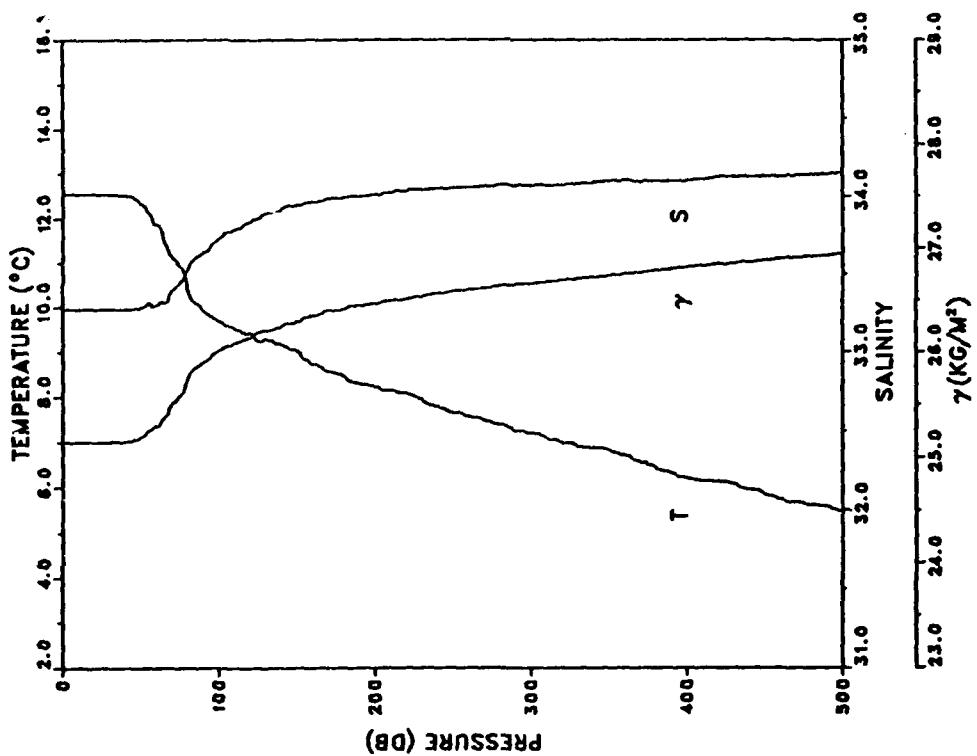


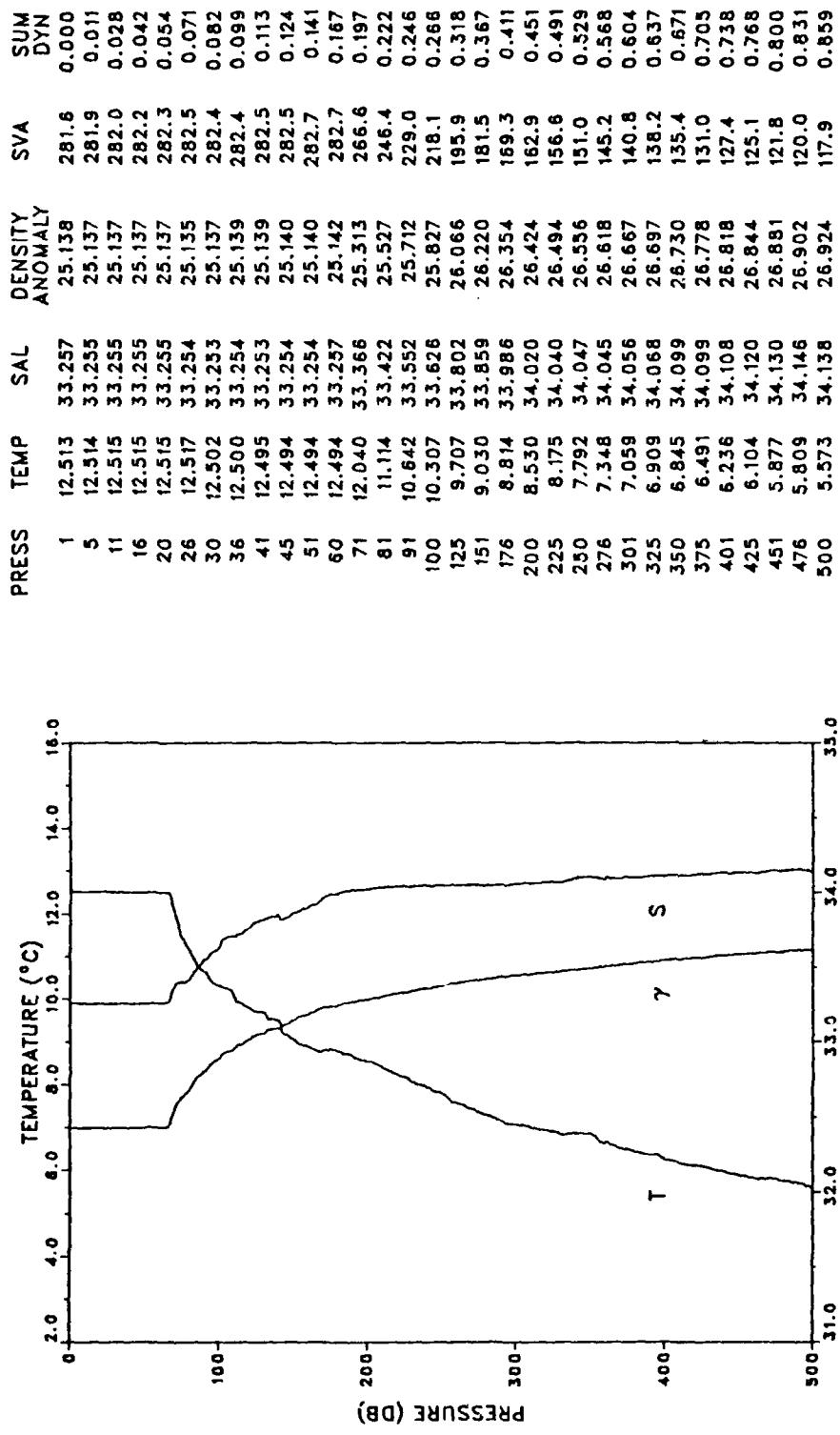
STATION: 25 LAT: 37 37.3 N LON: 124 37.5 W
DATE: 3/19/87 TIME: 1606Z



STATION: 26 LAT: 37 30.7 N LON: 124 31.8 W
DATE: 3/19/87 TIME: 1730Z

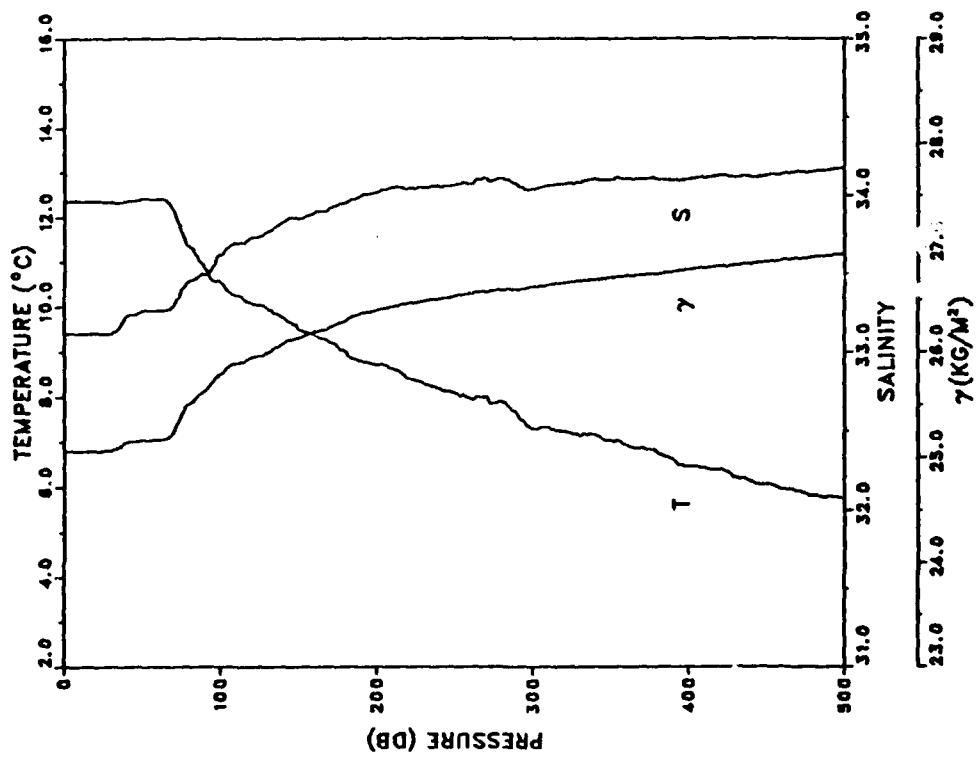
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.543	33.272	25.144	281.1	0.000
5	12.543	33.272	25.144	261.2	0.011
11	12.544	33.274	25.146	281.2	0.028
15	12.544	33.273	25.145	281.3	0.039
21	12.540	33.273	25.146	281.4	0.056
26	12.537	33.273	25.146	281.5	0.070
30	12.535	33.274	25.147	281.5	0.082
35	12.532	33.274	25.148	281.5	0.096
41	12.508	33.275	25.153	281.1	0.113
45	12.489	33.273	25.155	281.0	1.124
51	12.317	33.287	25.199	277.0	0.141
60	11.851	33.299	25.297	267.9	0.165
71	11.084	33.402	25.517	247.1	0.193
80	10.454	33.527	25.725	227.5	0.215
90	9.944	33.637	25.897	211.2	0.237
100	9.677	33.730	26.015	200.2	0.257
125	9.245	33.860	26.187	184.3	0.305
151	9.013	33.944	26.289	175.0	0.352
176	8.521	33.986	26.399	164.9	0.394
201	8.219	34.009	26.463	159.1	0.435
225	8.010	34.040	26.519	154.2	0.473
250	7.641	34.053	26.583	148.4	0.510
276	7.413	34.062	26.622	144.9	0.549
301	7.201	34.068	26.657	141.9	0.584
326	6.978	34.077	26.695	138.5	0.619
350	6.810	34.098	26.733	135.2	0.652
375	6.492	34.098	26.777	131.1	0.686
401	6.199	34.102	26.818	127.3	0.719
426	6.118	34.124	26.846	125.0	0.751
451	5.832	34.126	26.883	121.5	0.781
475	5.652	34.135	26.912	118.8	0.810
500	5.482	34.152	26.946	115.7	0.840



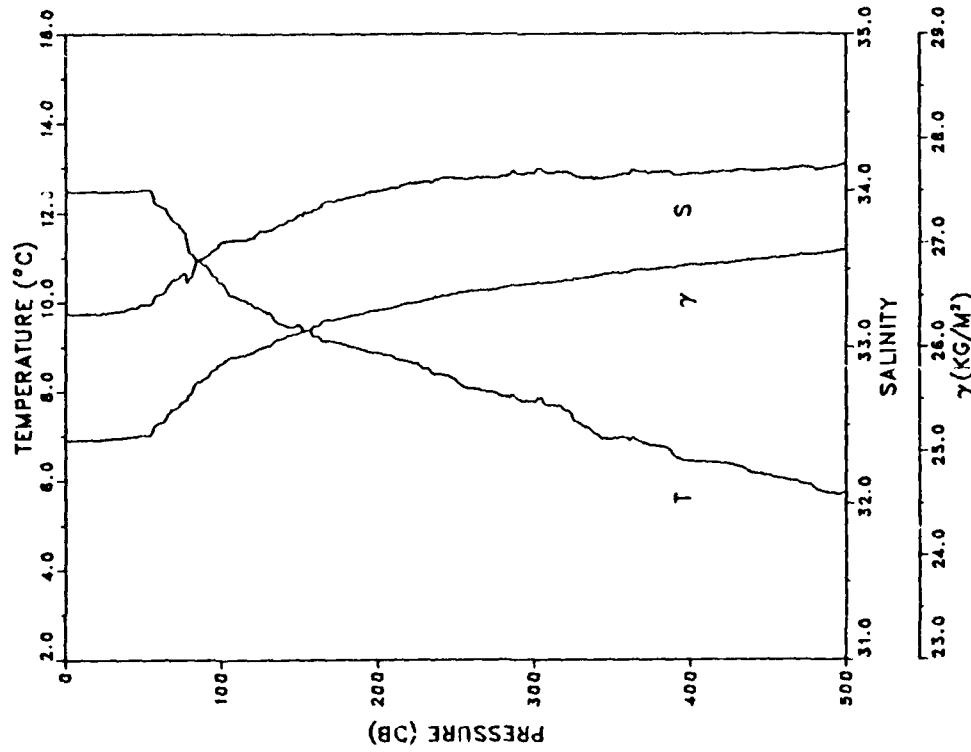


STATION: 28 LAT: 37 26.7 N LON: 124 20.0 W
 DATE: 3/19/87 TIME: 2023Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.353	33.115	25.059	289.2	0.000
5	12.353	33.115	25.059	289.3	0.012
10	12.362	33.116	25.058	289.5	0.026
15	12.361	33.116	25.058	289.6	0.043
20	12.362	33.116	25.058	289.7	0.055
25	12.344	33.117	25.062	289.4	0.072
31	12.333	33.123	25.069	288.9	0.087
36	12.321	33.154	25.095	286.5	0.101
40	12.374	33.228	25.143	282.1	0.113
45	12.381	33.237	25.148	281.7	0.127
51	12.410	33.260	25.161	280.7	0.144
60	12.407	33.264	25.164	280.5	0.159
71	12.309	33.298	25.247	272.9	0.199
81	11.316	33.454	25.515	247.5	0.225
91	10.324	33.494	25.635	236.3	0.249
100	10.531	33.618	25.782	222.4	0.270
126	10.938	33.736	25.959	206.1	0.326
151	9.487	33.849	26.139	189.4	0.375
176	9.062	33.940	26.279	176.5	0.421
201	8.697	34.021	26.399	165.4	0.464
226	8.348	34.045	26.472	158.8	0.504
250	8.063	34.062	26.528	153.8	0.542
276	7.861	34.100	26.588	148.4	0.581
300	7.291	34.036	26.219	145.5	0.616
325	7.194	34.076	26.684	141.5	0.652
351	7.024	34.100	26.707	137.8	0.688
375	6.633	34.107	26.738	135.0	0.721
401	6.450	34.103	26.786	130.6	0.756
426	6.317	34.119	26.816	127.9	0.788
450	6.083	34.123	26.852	124.6	0.818
476	5.849	34.146	26.897	120.5	0.850
500	5.742	34.170	26.929	117.7	0.879

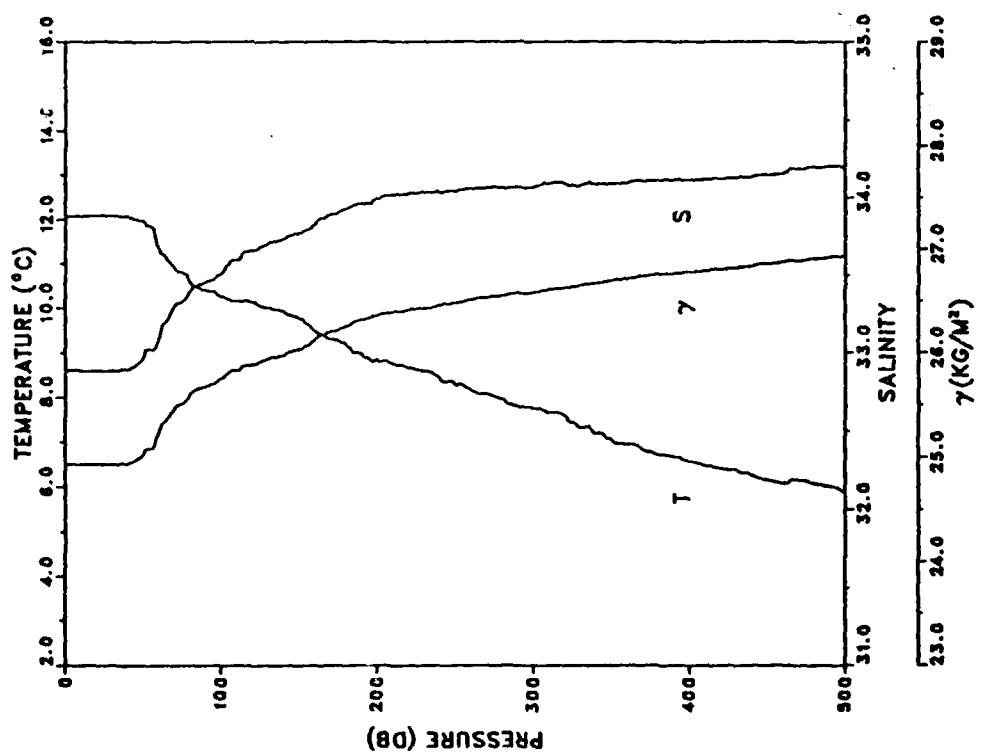


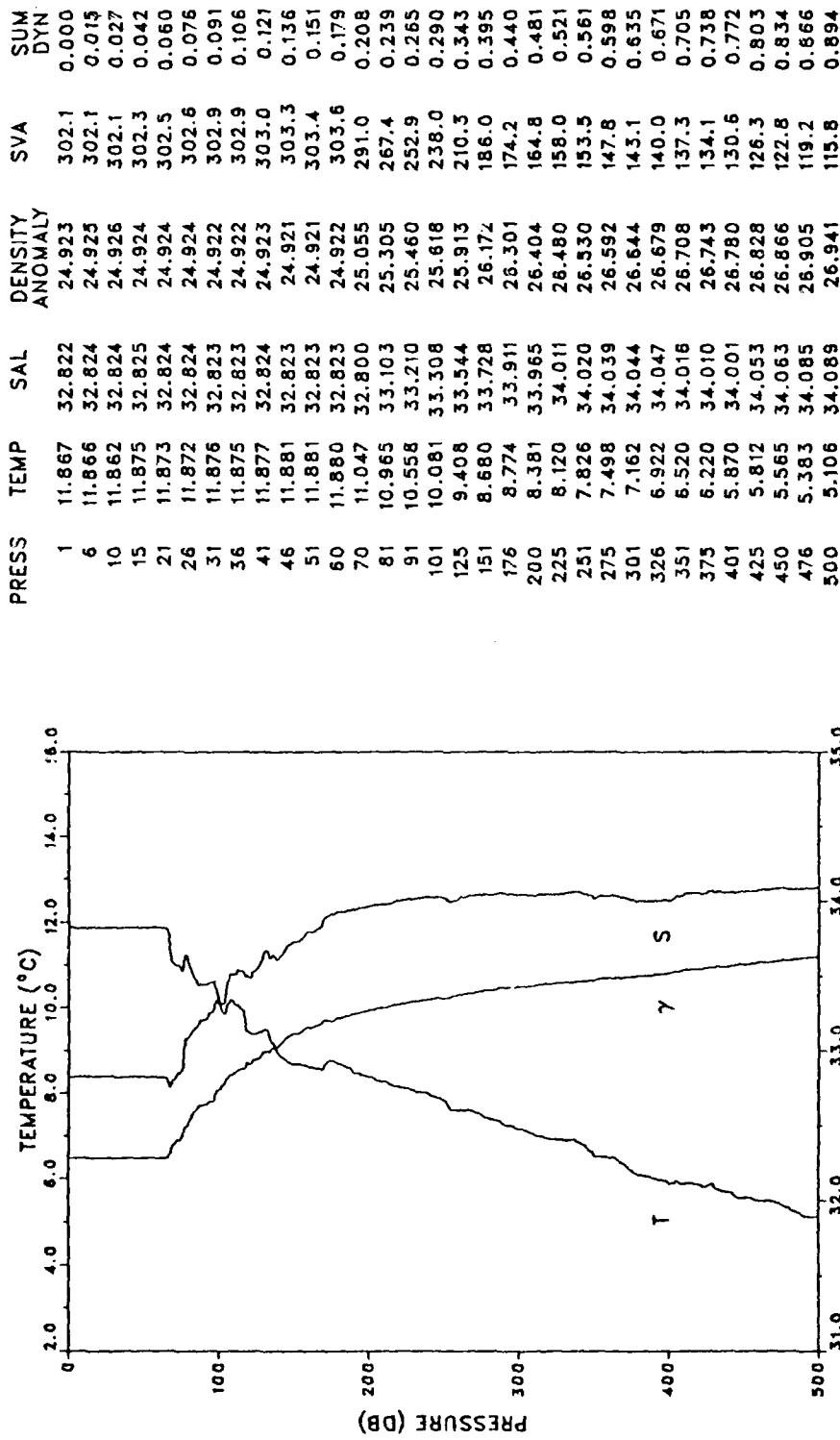
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.481	33.212	25.110	284.4	0.000
5	12.481	33.212	25.110	284.4	0.011
10	12.481	33.212	25.110	284.6	0.026
15	12.483	33.213	25.110	284.6	0.040
21	12.484	33.212	25.109	284.9	0.057
26	12.477	33.221	25.117	284.2	0.071
31	12.479	33.228	25.123	283.8	0.085
35	12.479	33.229	25.123	283.9	0.097
40	12.489	33.249	25.137	282.7	0.111
45	12.495	33.254	25.140	282.5	0.125
51	12.509	33.273	25.152	281.5	0.142
61	12.142	33.342	25.275	270.0	0.169
71	11.777	33.438	25.418	256.6	0.196
80	11.104	33.449	25.550	244.2	0.218
91	10.815	33.579	25.702	229.9	0.244
101	10.422	33.673	25.844	216.6	0.267
126	9.837	33.744	25.999	202.3	0.319
151	9.452	33.847	26.142	189.1	0.368
176	9.090	33.946	26.279	176.5	0.414
200	8.863	33.996	26.354	169.7	0.455
225	8.628	34.048	26.431	162.7	0.497
250	8.237	34.077	26.514	155.2	0.537
276	7.970	34.083	26.558	151.3	0.576
300	7.767	34.107	26.607	146.9	0.612
325	7.392	34.098	26.654	142.7	0.648
350	6.942	34.088	26.708	137.8	0.683
375	6.804	34.115	26.749	134.0	0.717
401	6.440	34.104	26.788	130.3	0.752
426	6.366	34.122	26.812	128.4	0.784
450	6.127	34.127	26.847	125.2	0.815
476	5.923	34.148	26.889	121.3	0.847
500	5.740	34.169	26.929	117.7	0.873



STATION: 30 LAT: 37 34.6 N LON: 124 2.1 W
DATE: 3/19/87 TIME: 2306Z

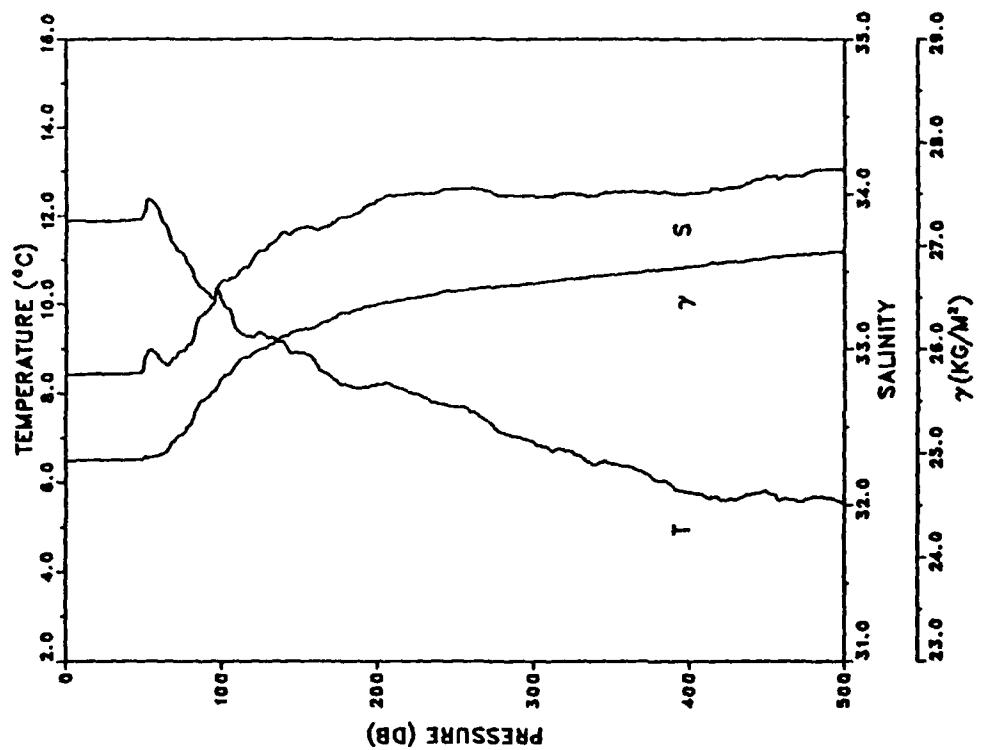
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.072	32.883	24.932	301.2	0.000
5	12.272	32.883	24.932	301.3	0.012
10	12.072	32.883	24.932	301.4	0.027
15	12.077	32.882	24.931	301.7	0.045
20	12.075	32.882	24.931	301.8	0.057
25	12.075	32.882	24.931	301.9	0.075
30	12.077	32.882	24.931	302.1	0.090
35	12.071	32.887	24.936	301.7	0.103
40	12.060	32.892	24.942	301.2	0.118
45	12.015	32.913	24.966	299.0	0.133
51	11.925	32.979	25.034	292.6	0.150
60	11.365	33.077	25.213	275.8	0.176
71	10.871	33.296	25.472	251.3	0.205
81	10.550	33.402	25.611	238.3	0.229
91	10.405	33.457	25.679	232.1	0.253
100	10.252	33.507	25.744	226.0	0.274
126	10.042	33.684	25.918	210.0	0.330
150	9.762	33.769	26.031	199.7	0.379
176	9.243	33.904	26.221	182.0	0.429
200	8.833	33.991	26.355	169.6	0.471
225	8.809	34.024	26.415	164.2	0.513
251	8.256	34.030	26.474	159.0	0.555
276	8.004	34.064	26.538	153.2	0.594
301	7.738	34.069	26.581	149.4	0.632
326	7.423	34.078	26.634	144.6	0.669
351	7.027	34.082	26.692	139.2	0.704
375	6.773	34.108	26.747	134.1	0.737
400	6.573	34.111	26.776	131.6	0.770
425	6.389	34.124	26.811	128.5	0.803
450	6.158	34.144	26.857	124.3	0.834
475	6.137	34.187	26.893	121.2	0.865
500	5.866	34.200	26.937	117.0	0.895



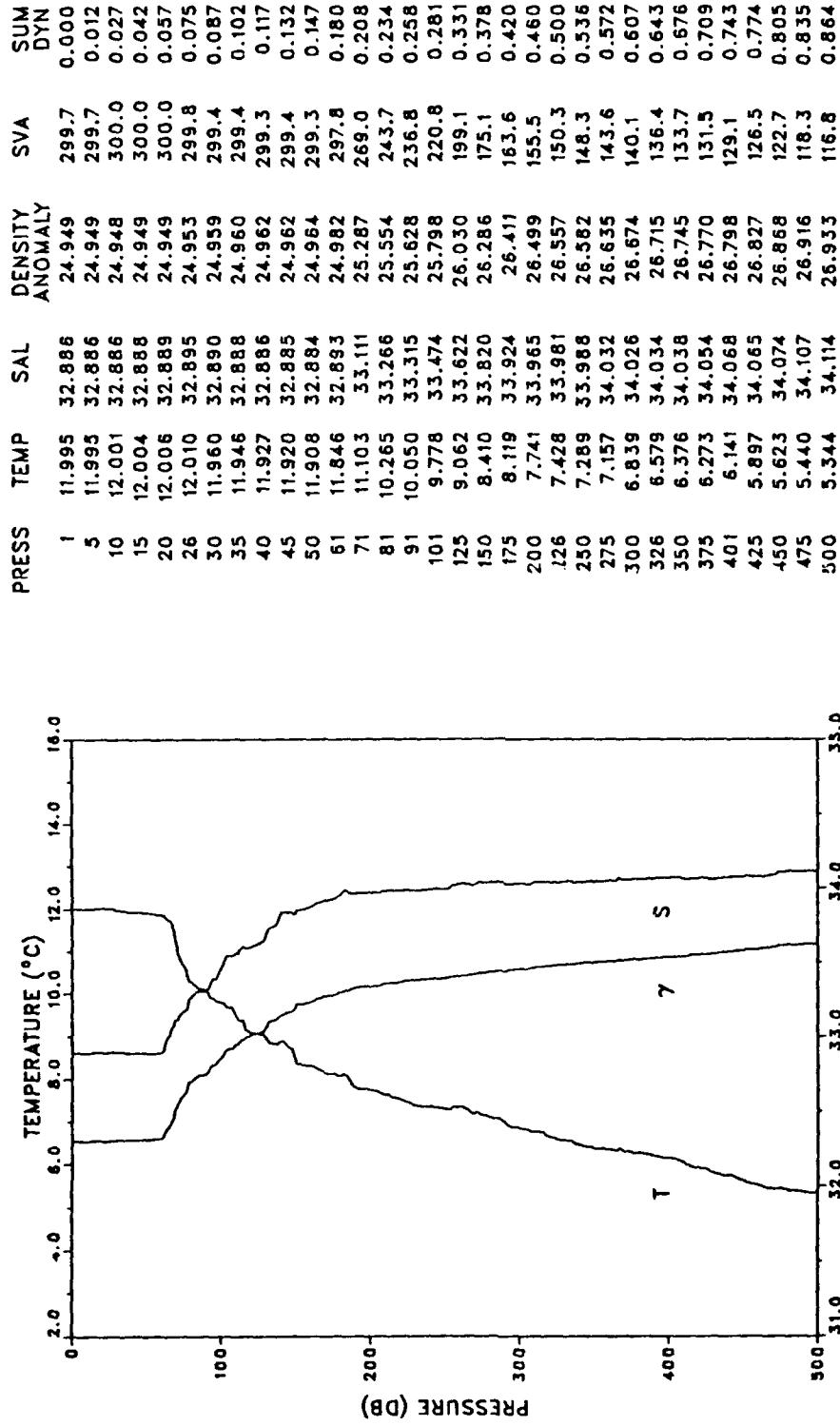


STATION: 35 LAT: 33 5.0 N LON: 123 48.2 W
DATE: 3/20/87 TIME: 1500Z

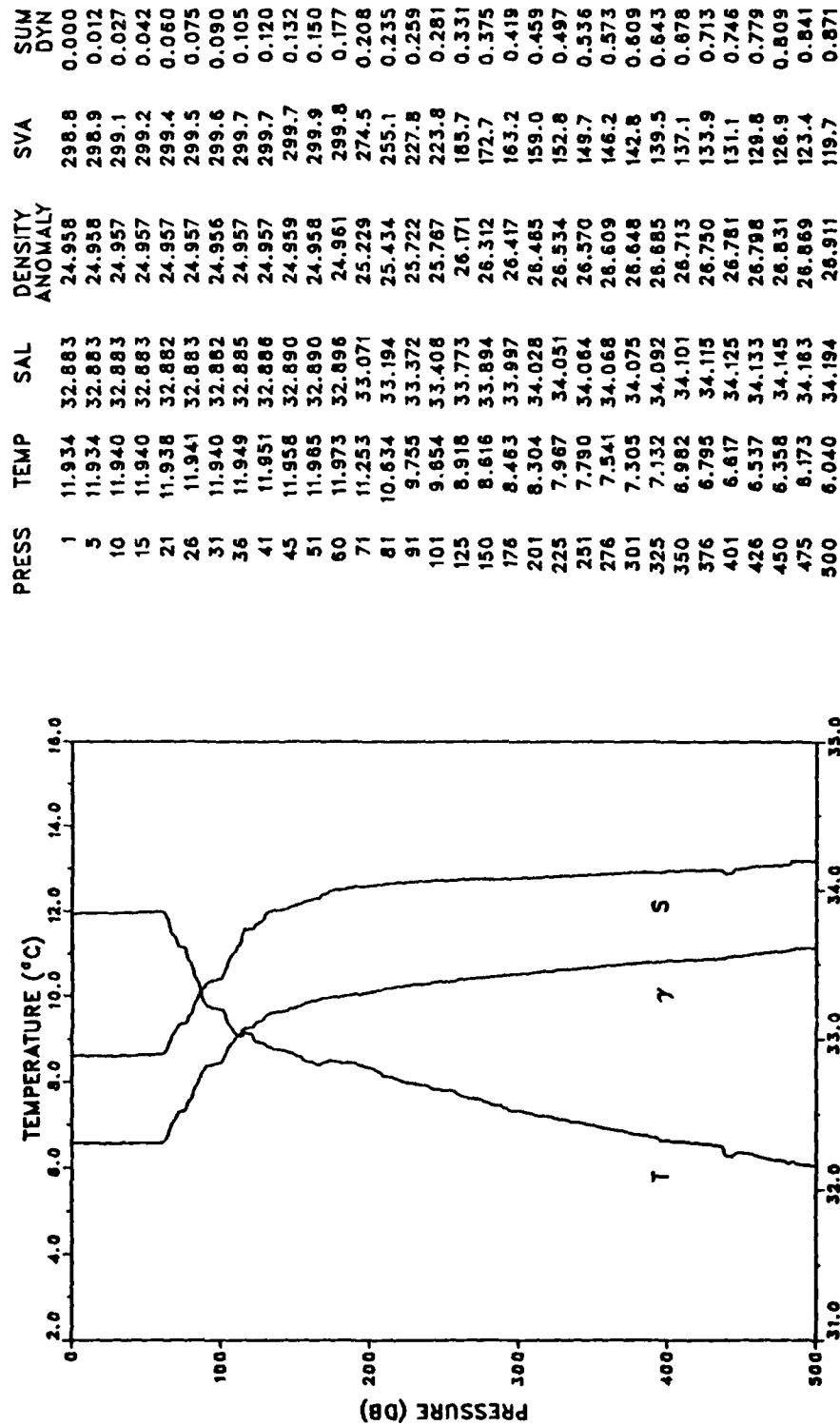
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.892	32.833	24.927	301.7	0.000
5	11.893	32.833	24.927	301.8	0.012
10	11.887	32.834	24.929	301.8	0.027
16	11.879	32.835	24.931	301.7	0.045
21	11.880	32.834	24.930	301.9	0.060
26	11.883	32.836	24.931	301.9	0.075
30	11.880	32.835	24.931	302.0	0.088
35	11.886	32.836	24.931	302.2	0.103
41	11.904	32.842	24.932	302.2	0.121
46	11.905	32.843	24.932	302.2	0.136
51	12.150	32.946	24.986	299.1	0.151
61	11.967	32.924	24.984	297.7	0.181
71	11.299	32.941	25.119	284.9	0.210
81	10.786	33.037	25.285	269.3	0.238
91	10.271	33.242	25.534	245.8	0.263
101	10.038	33.439	25.727	227.8	0.287
126	9.336	33.632	25.994	202.6	0.341
151	8.895	33.776	26.177	185.6	0.369
176	8.211	33.844	26.335	170.9	0.434
201	8.192	33.958	26.427	162.5	0.476
225	7.977	34.003	26.494	156.5	0.514
251	7.696	34.033	26.559	150.6	0.534
275	7.257	33.999	26.595	147.4	0.590
300	6.911	33.986	26.632	144.0	0.626
325	6.687	34.004	26.677	140.0	0.661
350	6.423	34.009	26.716	136.5	0.696
376	6.141	34.013	26.755	132.9	0.731
401	5.773	34.003	26.793	129.3	0.764
425	5.612	34.038	26.841	125.0	0.794
451	5.768	34.112	26.880	121.7	0.826
475	5.625	34.133	26.914	118.6	0.855
500	5.533	34.157	26.944	116.0	0.885



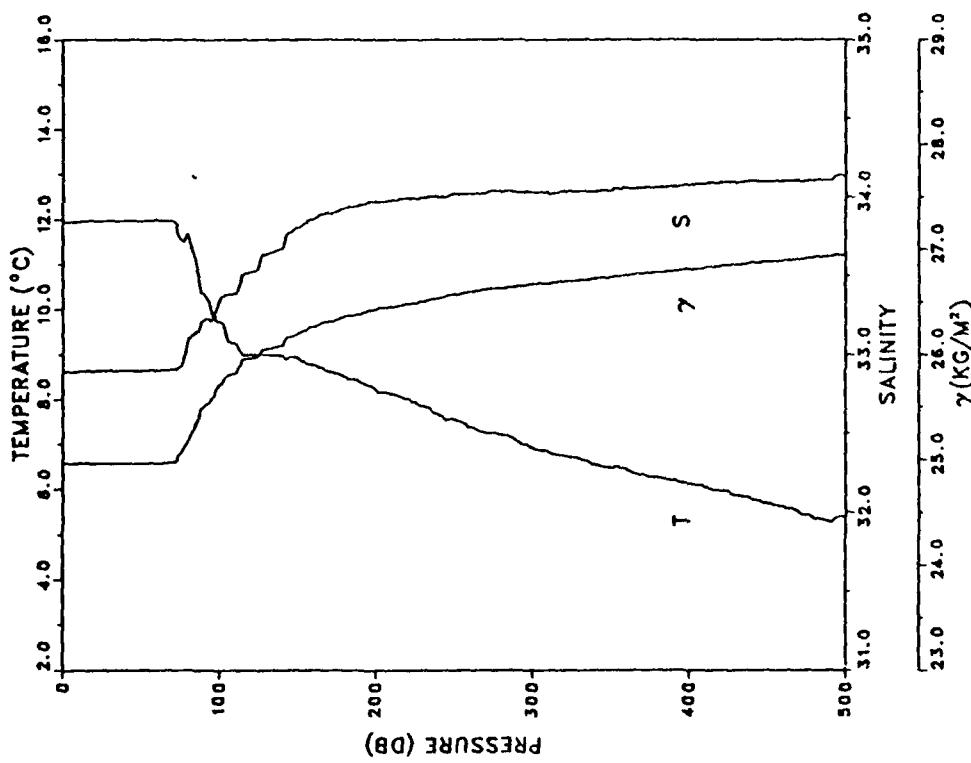
STATION: 36 LAT: 38 24.6 N LON: 123 58.5 W
DATE: 3/20/87 TIME: 1748Z



STATION: 39 LAT: 38 45.0 N LON: 124 14.0 W
DATE: 3/21/87 TIME: 0136Z

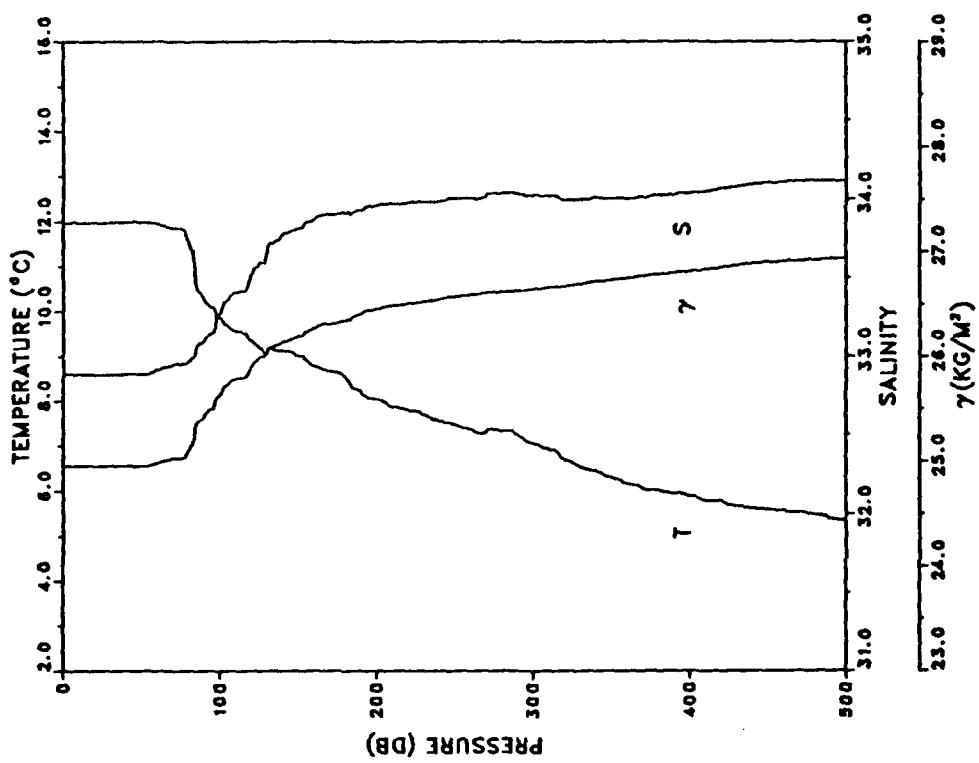


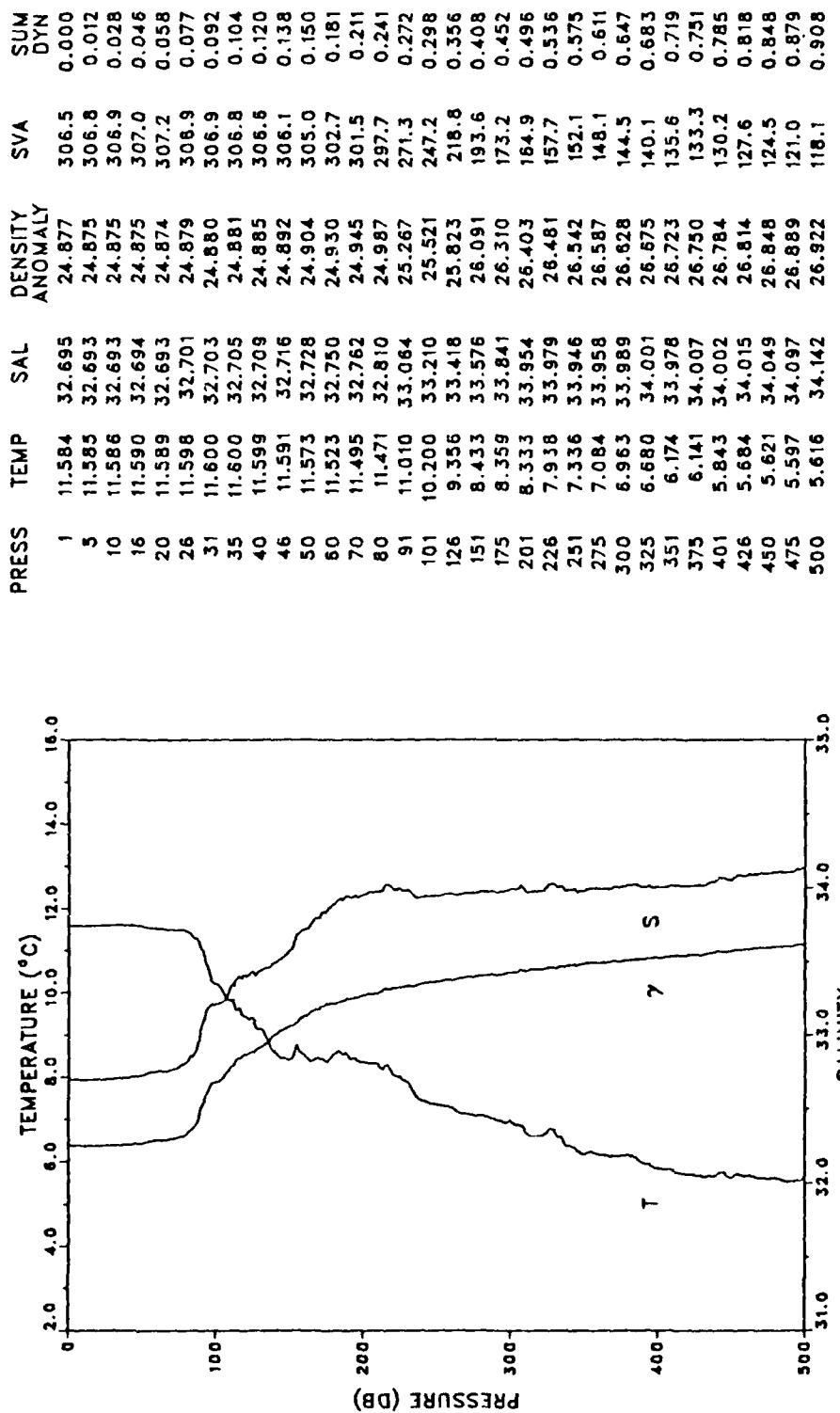
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.929	32.887	24.962	298.4	0.000
6	11.936	32.887	24.961	298.6	0.015
11	11.943	32.893	24.964	298.4	0.030
15	11.948	32.890	24.961	298.8	0.042
20	11.958	32.892	24.961	299.0	0.057
26	11.967	32.896	24.962	299.0	0.075
31	11.969	32.894	24.960	299.3	0.090
36	11.969	32.896	24.962	299.2	0.105
41	11.969	32.895	24.961	299.4	0.120
45	11.970	32.895	24.961	299.5	0.132
50	11.970	32.895	24.961	299.6	0.147
60	11.971	32.898	24.963	299.6	0.176
71	11.929	32.899	24.971	299.1	0.209
81	11.573	33.104	25.196	277.8	0.238
91	10.328	33.224	25.510	248.0	0.265
101	9.716	33.355	25.715	228.7	0.288
126	8.987	33.562	25.995	202.5	0.342
150	8.900	33.802	26.196	183.8	0.389
176	8.569	33.911	26.333	171.2	0.435
200	8.226	33.967	26.429	162.3	0.475
225	7.941	33.988	26.488	157.1	0.515
251	7.541	34.016	26.568	149.7	0.555
276	7.244	34.034	26.624	144.6	0.591
301	6.895	34.027	26.667	140.8	0.627
325	6.714	34.034	26.697	138.1	0.661
350	6.479	34.037	26.730	135.2	0.695
376	6.278	34.057	26.772	131.4	0.729
400	6.125	34.073	26.804	128.5	0.761
426	5.918	34.088	26.842	125.1	0.793
450	5.686	34.096	26.877	121.9	0.823
476	5.440	34.106	26.915	118.4	0.854
500	5.402	34.137	26.944	115.9	0.882



STATION: 41 LAT: 38 56.9 N LON: 124 45.1 W
DATE: 3/21/87 TIME: 0641Z

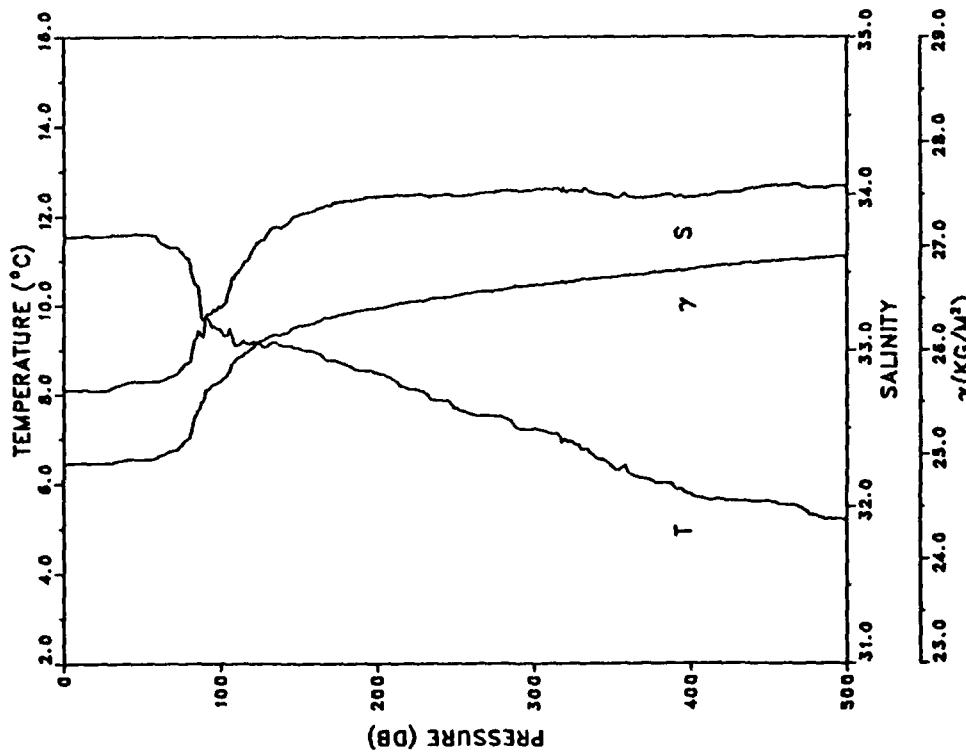
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.985	32.884	24.953	299.3	0.000
5	11.968	32.884	24.953	299.4	0.012
10	11.965	32.883	24.952	299.5	0.027
15	11.968	32.883	24.952	299.7	0.042
20	11.969	32.881	24.950	300.0	0.057
25	11.971	32.882	24.950	300.1	0.075
30	11.971	32.881	24.950	300.2	0.087
35	11.977	32.882	24.949	300.4	0.105
40	11.979	32.883	24.950	300.4	0.117
45	11.984	32.884	24.950	300.6	0.135
50	11.985	32.884	24.949	300.7	0.147
60	11.938	32.914	24.981	297.9	0.177
70	11.848	32.946	25.023	294.1	0.207
80	11.567	32.970	25.093	287.6	0.236
90	10.302	33.091	25.411	257.4	0.263
100	9.843	33.268	25.825	237.3	0.288
125	9.170	33.592	25.959	203.0	0.345
150	9.000	33.808	26.185	184.8	0.391
175	8.627	33.903	26.318	172.6	0.436
200	8.027	33.959	26.453	160.0	0.478
225	7.785	33.981	26.508	155.1	0.519
250	7.471	34.004	26.569	149.6	0.555
275	7.362	34.033	26.607	146.3	0.594
300	7.042	34.020	26.641	143.3	0.628
325	6.631	33.993	26.675	140.1	0.664
350	6.307	34.004	26.727	135.4	0.698
375	6.021	34.021	26.777	130.8	0.733
401	5.880	34.039	26.808	127.9	0.765
425	5.697	34.074	26.859	123.3	0.795
450	5.588	34.101	26.893	120.3	0.826
475	5.498	34.116	26.916	116.3	0.856
500	5.347	34.115	26.933	116.8	0.885





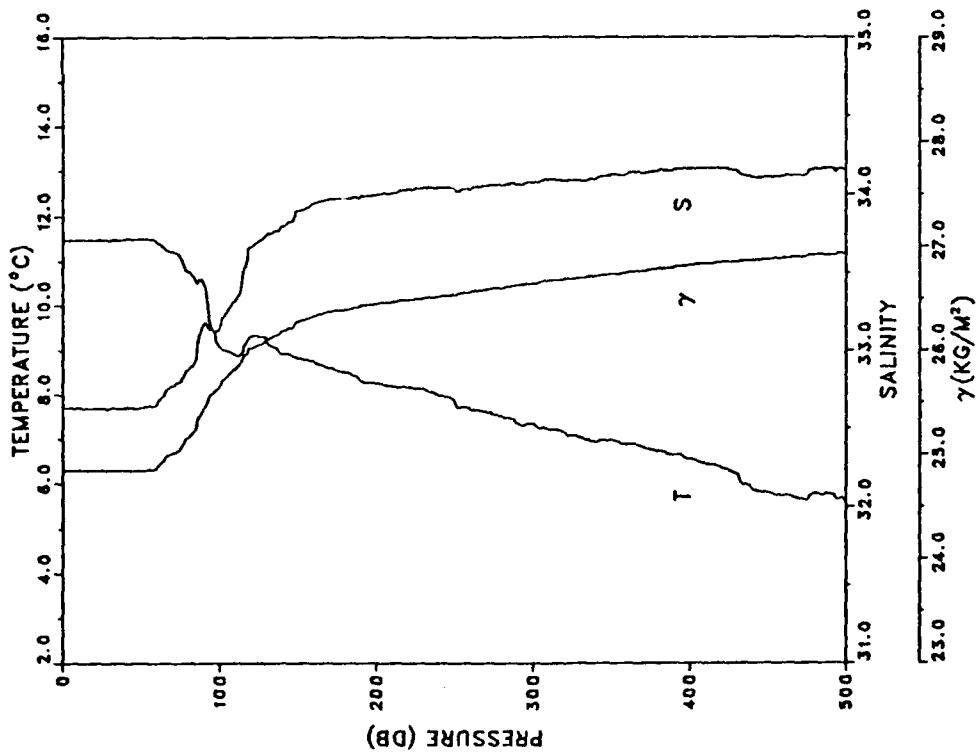
STATION: 43 LAT: 39 11.1 N LON: 124 54.5 W
DATE: 3/21/87 TIME: 0918Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.554	32.741	24.916	302.6	0.000
5	11.554	32.741	24.918	302.7	0.012
11	11.557	32.740	24.917	303.0	0.030
16	11.555	32.738	24.915	303.2	0.045
20	11.557	32.737	24.914	303.4	0.058
26	11.557	32.740	24.917	303.3	0.076
31	11.587	32.758	24.925	302.6	0.091
35	11.591	32.773	24.936	301.6	0.103
40	11.582	32.786	24.948	300.6	0.118
46	11.599	32.796	24.952	300.3	0.136
50	11.597	32.796	24.953	300.3	0.148
60	11.474	32.792	24.972	298.7	0.178
71	11.304	32.839	25.039	292.5	0.211
81	10.931	32.928	25.175	279.8	0.239
91	9.720	33.205	25.597	239.7	0.265
100	9.442	33.273	25.696	230.4	0.286
126	9.112	33.709	26.090	193.5	0.341
150	9.020	33.869	26.230	180.6	0.386
176	8.719	33.953	26.343	170.3	0.432
200	8.472	33.985	26.406	164.6	0.472
226	8.095	33.997	26.472	158.8	0.514
250	7.683	33.987	26.525	153.9	0.552
275	7.513	34.011	26.568	150.1	0.590
300	7.218	34.028	26.725	145.1	0.627
325	6.920	34.023	26.860	141.7	0.662
351	6.364	33.979	26.700	138.0	0.699
376	6.052	33.983	26.743	134.0	0.733
401	5.768	33.980	26.776	130.9	0.766
426	5.824	34.011	26.818	127.1	0.798
450	5.614	34.050	26.850	124.4	0.828
475	5.366	34.042	26.873	122.2	0.859
500	5.183	34.054	26.904	119.4	0.889

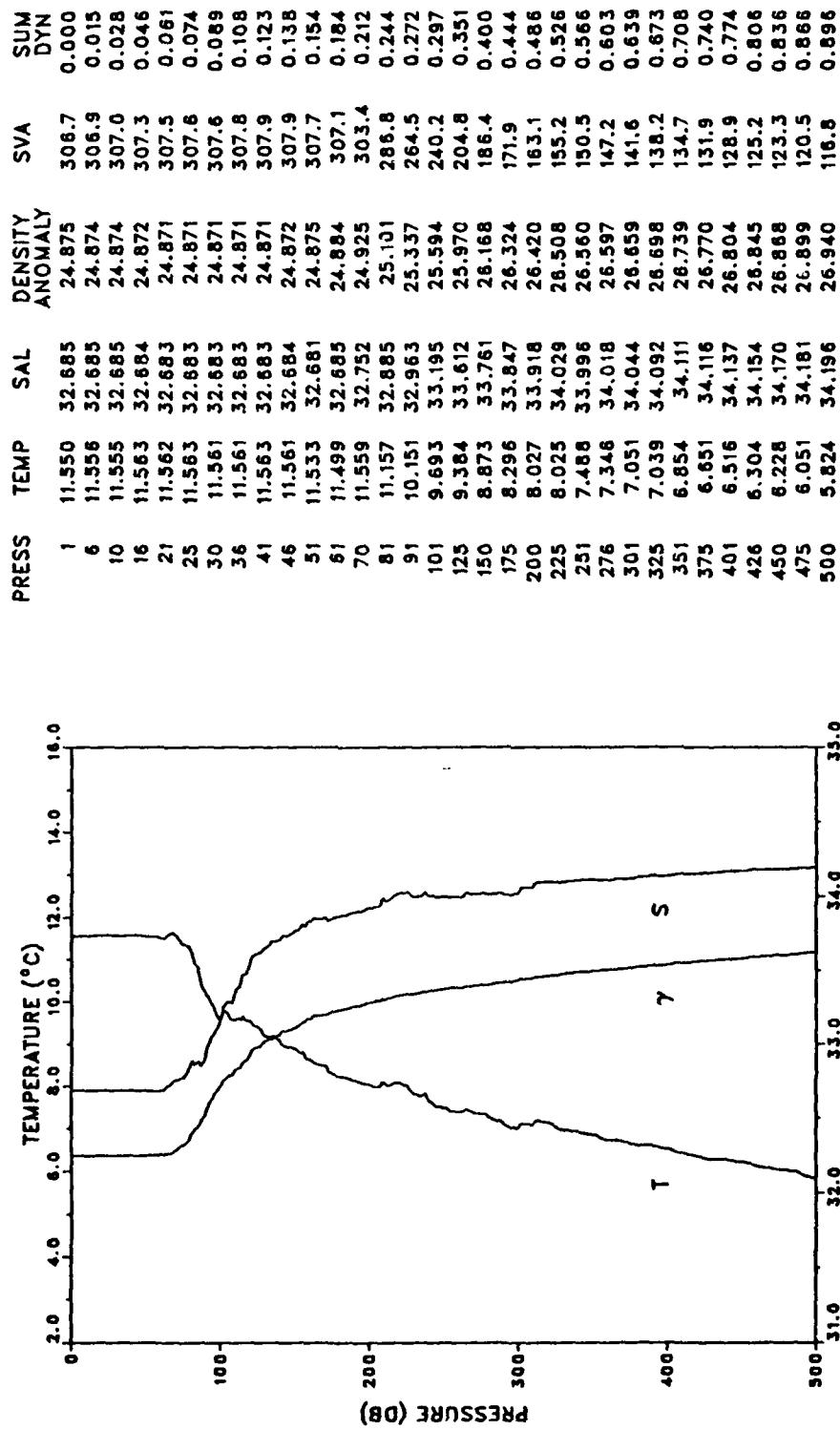


STATION: 44 LAT: 39 18.2 N LON: 124 59.4 W
DATE: 3/21/87 TIME: 1041Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.483	32.629	24.844	309.7	0.000
5	11.483	32.629	24.844	309.8	0.012
10	11.487	32.629	24.843	309.9	0.028
15	11.477	32.625	24.842	310.2	0.043
21	11.485	32.626	24.841	310.4	0.062
26	11.480	32.626	24.842	310.4	0.078
31	11.485	32.629	24.843	310.3	0.093
35	11.474	32.624	24.841	310.6	0.105
40	11.492	32.629	24.842	310.6	0.121
45	11.499	32.629	24.841	310.9	0.137
50	11.501	32.631	24.842	310.9	0.152
61	11.402	32.669	24.889	306.6	0.186
71	11.188	32.774	25.010	295.3	0.216
80	10.785	32.874	25.159	281.3	0.242
91	10.422	33.179	25.459	252.9	0.271
101	9.027	33.172	25.683	231.6	0.296
125	9.308	33.702	26.053	197.0	0.347
151	8.818	33.896	26.283	175.6	0.396
176	8.530	33.971	26.386	166.1	0.438
200	8.253	33.992	26.445	160.9	0.477
226	8.133	34.037	26.498	156.2	0.519
251	7.762	34.016	26.536	152.8	0.557
275	7.545	34.058	26.601	147.0	0.593
300	7.341	34.076	26.644	143.2	0.630
326	7.070	34.087	26.690	139.0	0.666
350	6.970	34.120	26.730	135.6	0.699
376	6.750	34.138	26.774	131.6	0.734
401	6.539	34.161	26.820	127.4	0.766
426	6.289	34.151	26.845	125.2	0.798
450	5.793	34.105	26.871	122.5	0.828
476	5.665	34.137	26.912	118.9	0.859
500	5.597	34.144	26.926	117.8	0.887

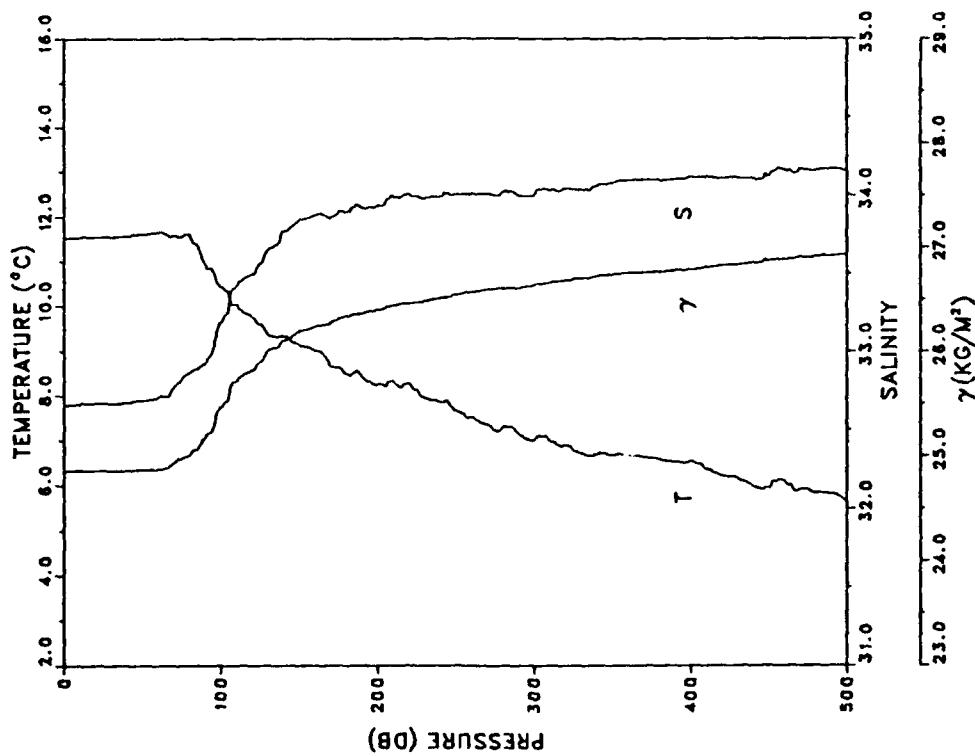


STATION: 45 LAT: 39 25.3 N LON: 125 4.3 W
DATE: 3/21/87 TIME: 1206Z

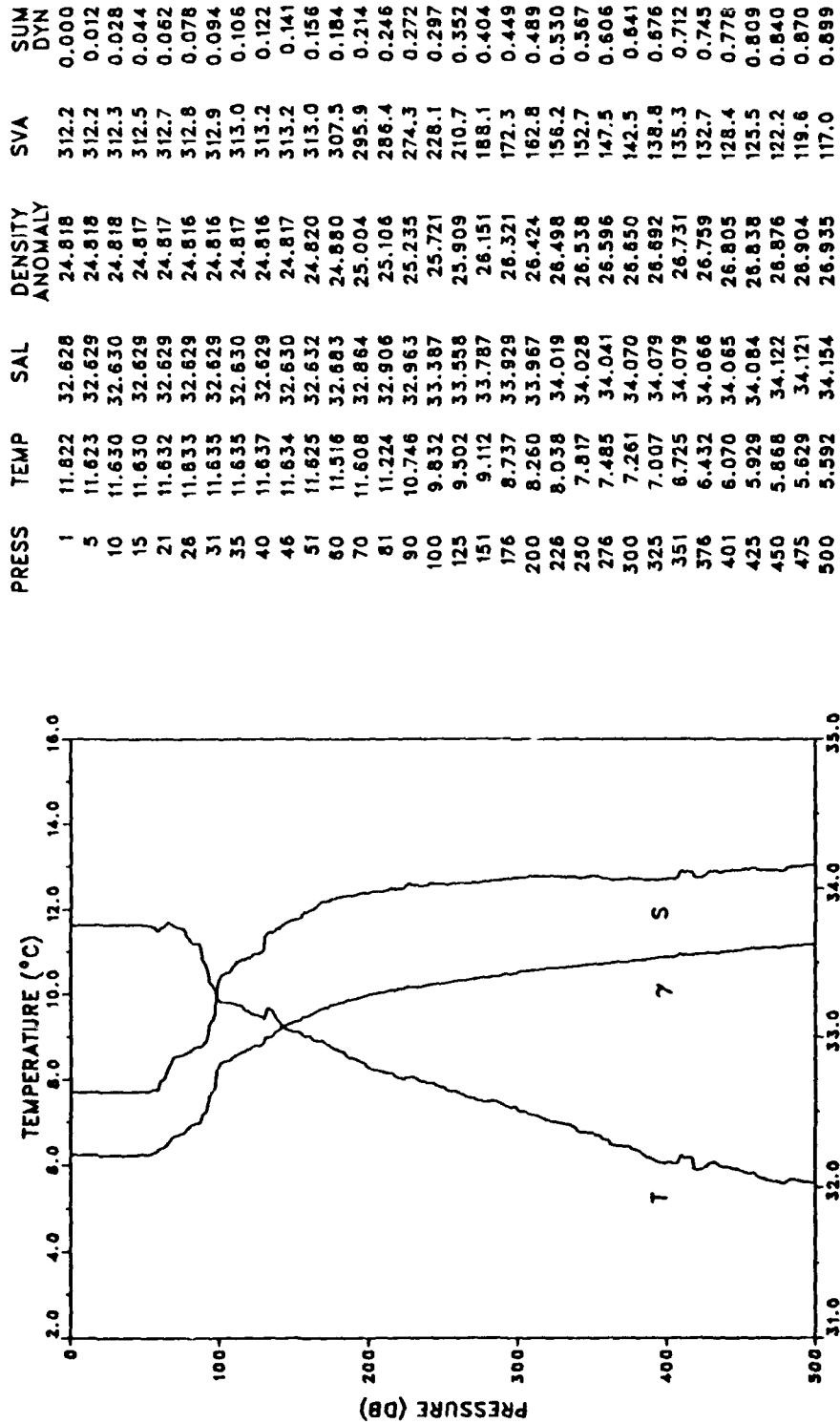


STATION: 46 LAT: 39 32.1 N LON: 125 9.2 W
DATE: 3/21/87 TIME: 1336Z

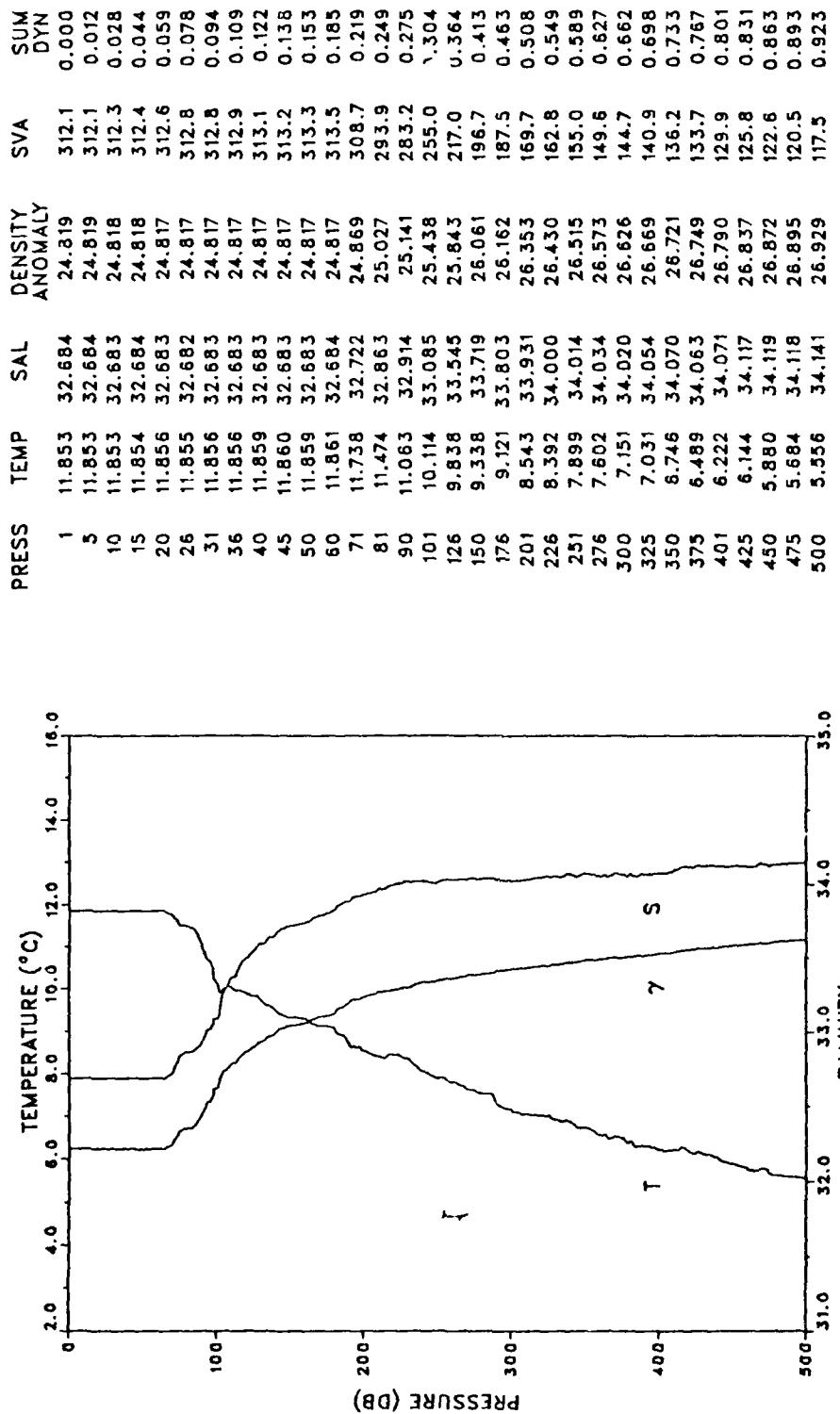
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.529	32.655	24.856	308.5	0.000
6	11.533	32.656	24.856	308.6	0.015
10	11.535	32.657	24.856	308.7	0.028
16	11.555	32.666	24.859	308.5	0.046
21	11.551	32.664	24.859	308.7	0.062
26	11.556	32.665	24.858	308.8	0.077
31	11.557	32.666	24.859	308.9	0.093
36	11.561	32.666	24.858	309.0	0.108
40	11.571	32.668	24.858	309.1	0.120
45	11.608	32.681	24.861	308.9	0.136
51	11.619	32.686	24.863	308.9	0.154
61	11.665	32.708	24.872	308.3	0.185
70	11.579	32.756	24.925	303.4	0.213
80	11.612	32.862	25.001	296.4	0.243
91	10.901	32.926	25.179	279.6	0.274
101	10.413	33.191	25.470	252.1	0.301
125	9.600	33.561	25.895	212.0	0.357
150	9.134	33.830	26.181	185.3	0.406
175	8.623	33.881	26.301	174.2	0.451
200	8.255	33.930	26.396	165.5	0.494
226	8.092	33.985	26.463	159.5	0.536
250	7.659	34.003	26.541	152.3	0.573
276	7.214	33.993	26.596	147.3	0.612
301	6.996	34.004	26.635	143.8	0.649
326	6.762	34.037	26.693	138.6	0.684
351	6.675	34.079	26.757	134.6	0.718
375	6.615	34.094	26.757	133.1	0.750
401	6.546	34.114	26.782	131.0	0.785
426	6.201	34.111	26.825	127.0	0.817
450	5.944	34.121	26.865	123.3	0.847
475	5.919	34.166	26.904	119.9	0.877
500	5.651	34.159	26.932	117.3	0.907



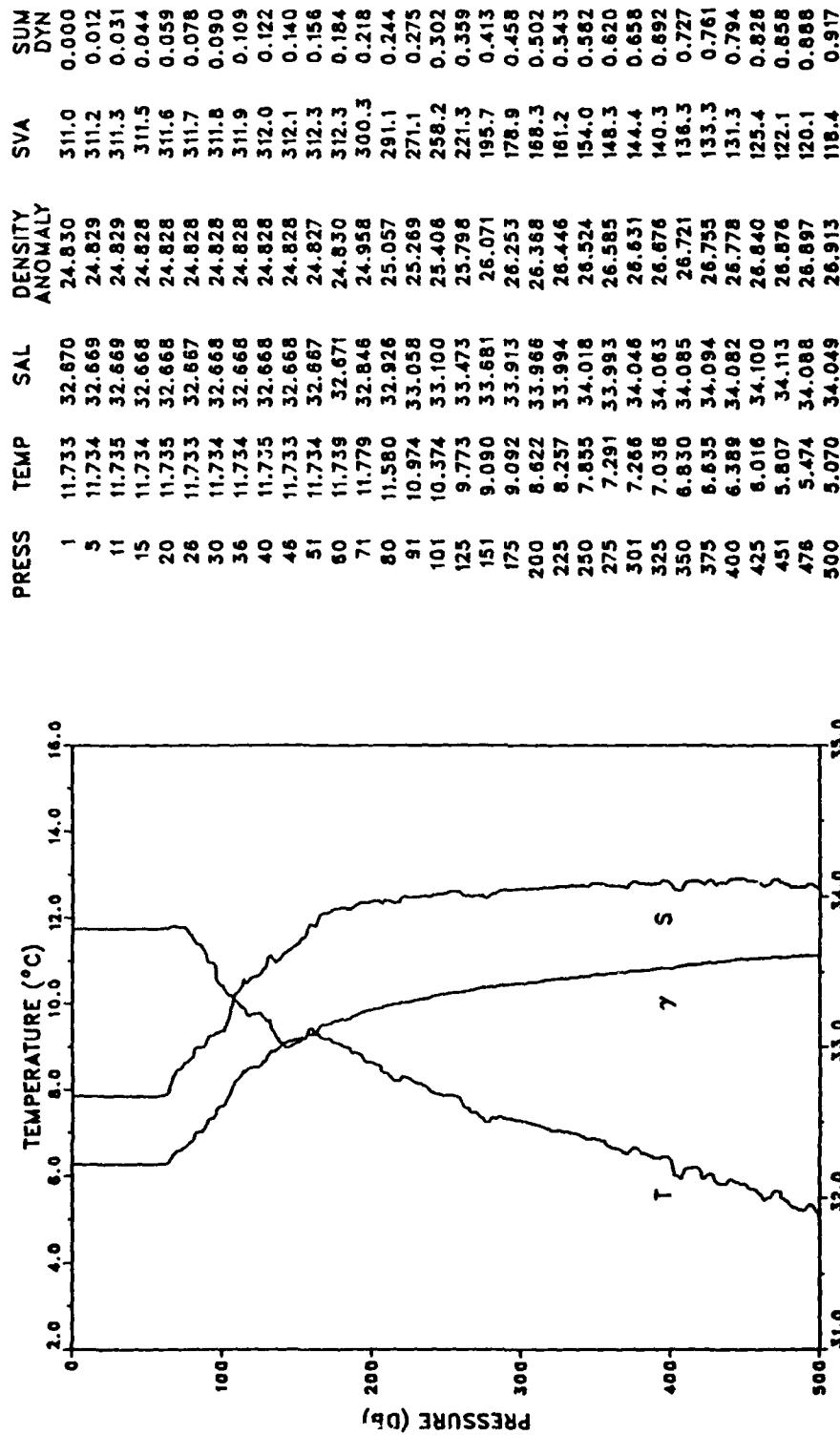
STATION: 47 LAT: 39 39.8 N LON: 125 14.4 W
DATE: 3/21/87 TIME: 1506Z



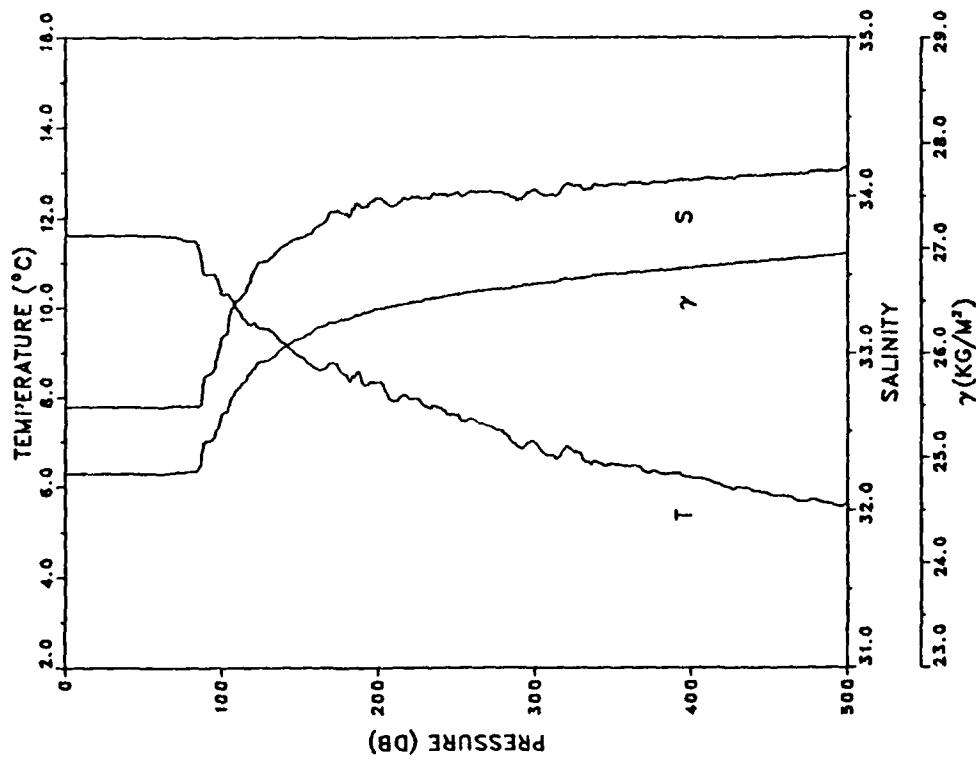
STATION: 48 LAT: 39 46.7 N LON: 125 19.8 W
 DATE: 3/2/87 TIME: 1712



STATION: 49 LAT: 39 52.9 N LON: 125 25.1 W
 DATE: 3/2/87 TIME: 1830Z

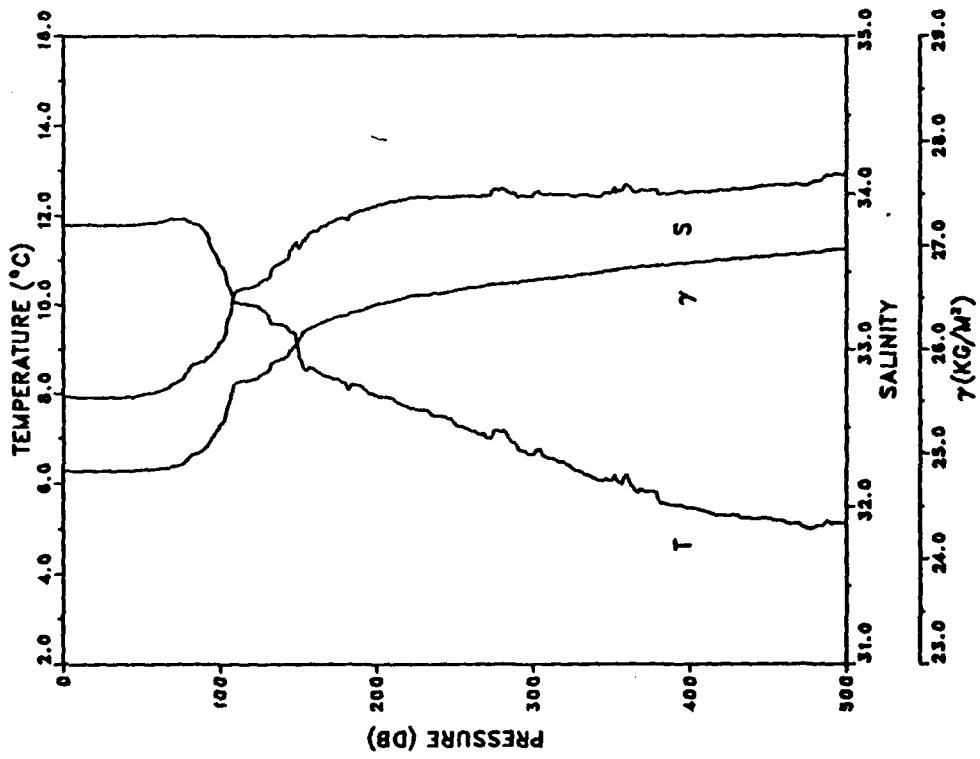


PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.620	32.657	24.841	310.0	0.000
5	11.620	32.657	24.841	310.1	0.012
10	11.623	32.656	24.839	310.3	0.028
15	11.623	32.656	24.839	310.4	0.043
21	11.620	32.656	24.840	310.5	0.062
25	11.618	32.656	24.840	310.5	0.074
30	11.618	32.656	24.840	310.6	0.090
36	11.620	32.655	24.839	310.9	0.109
40	11.620	32.655	24.839	311.0	0.121
45	11.620	32.655	24.839	311.1	0.137
50	11.618	32.655	24.839	311.1	0.152
61	11.614	32.656	24.841	311.2	0.186
70	11.587	32.659	24.848	310.7	0.214
81	11.504	32.661	24.865	309.3	0.249
91	10.758	32.860	25.152	282.1	0.278
100	10.308	33.090	25.409	257.8	0.302
125	9.560	33.581	25.917	209.9	0.361
151	8.904	33.737	26.145	188.7	0.413
176	8.605	33.896	26.316	172.8	0.458
200	8.339	33.982	26.424	162.9	0.498
226	7.949	33.989	26.488	157.1	0.540
250	7.620	34.020	26.560	150.5	0.577
276	7.258	34.017	26.609	146.1	0.615
301	6.959	34.033	26.663	141.2	0.651
325	6.787	34.064	26.711	136.9	0.684
351	6.497	34.070	26.754	132.9	0.720
375	6.342	34.086	26.797	130.0	0.751
401	6.204	34.100	26.816	127.6	0.785
425	6.000	34.111	26.850	124.4	0.815
450	5.839	34.126	26.882	121.6	0.846
475	5.704	34.145	26.914	118.7	0.876
500	5.643	34.179	26.948	115.7	0.905

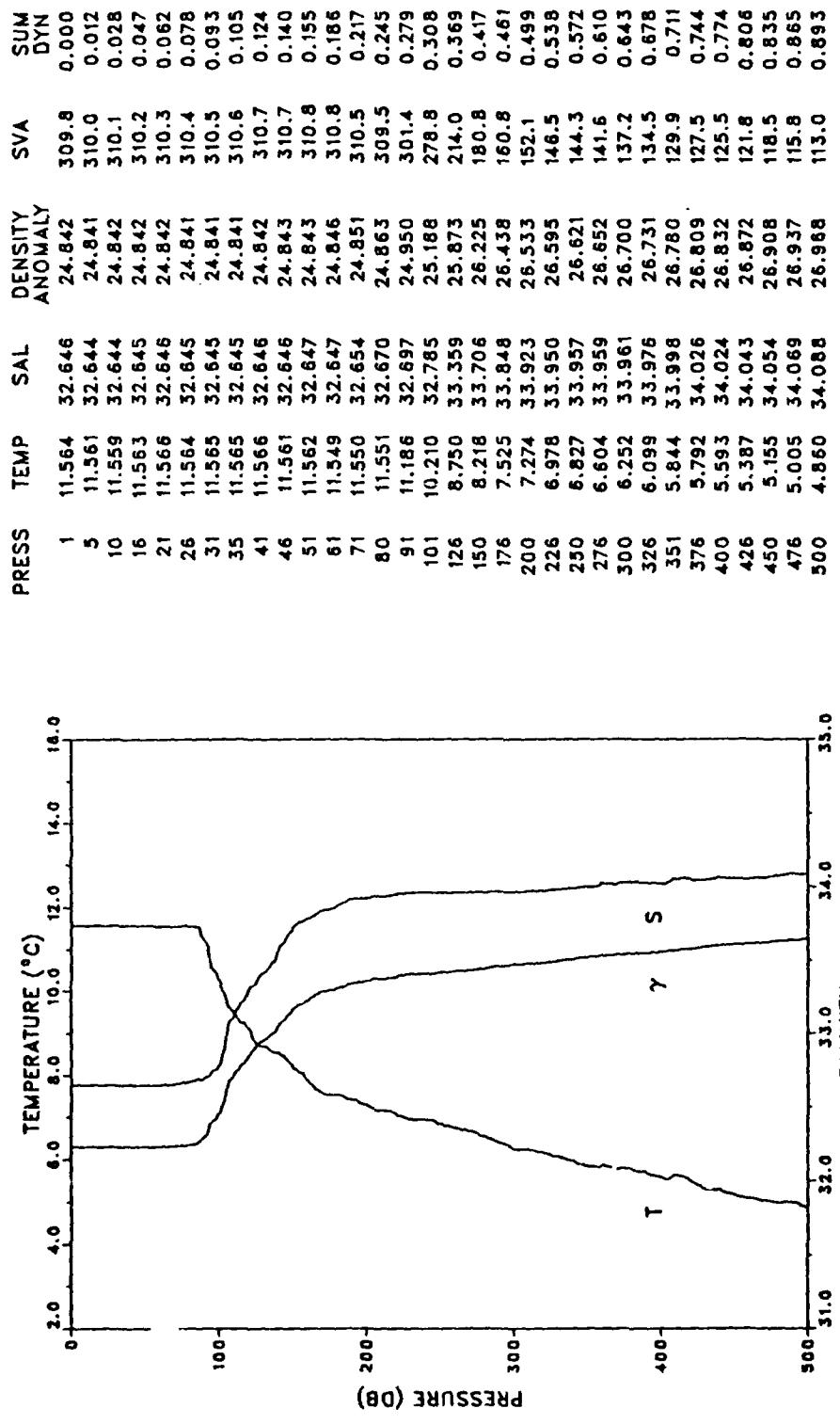


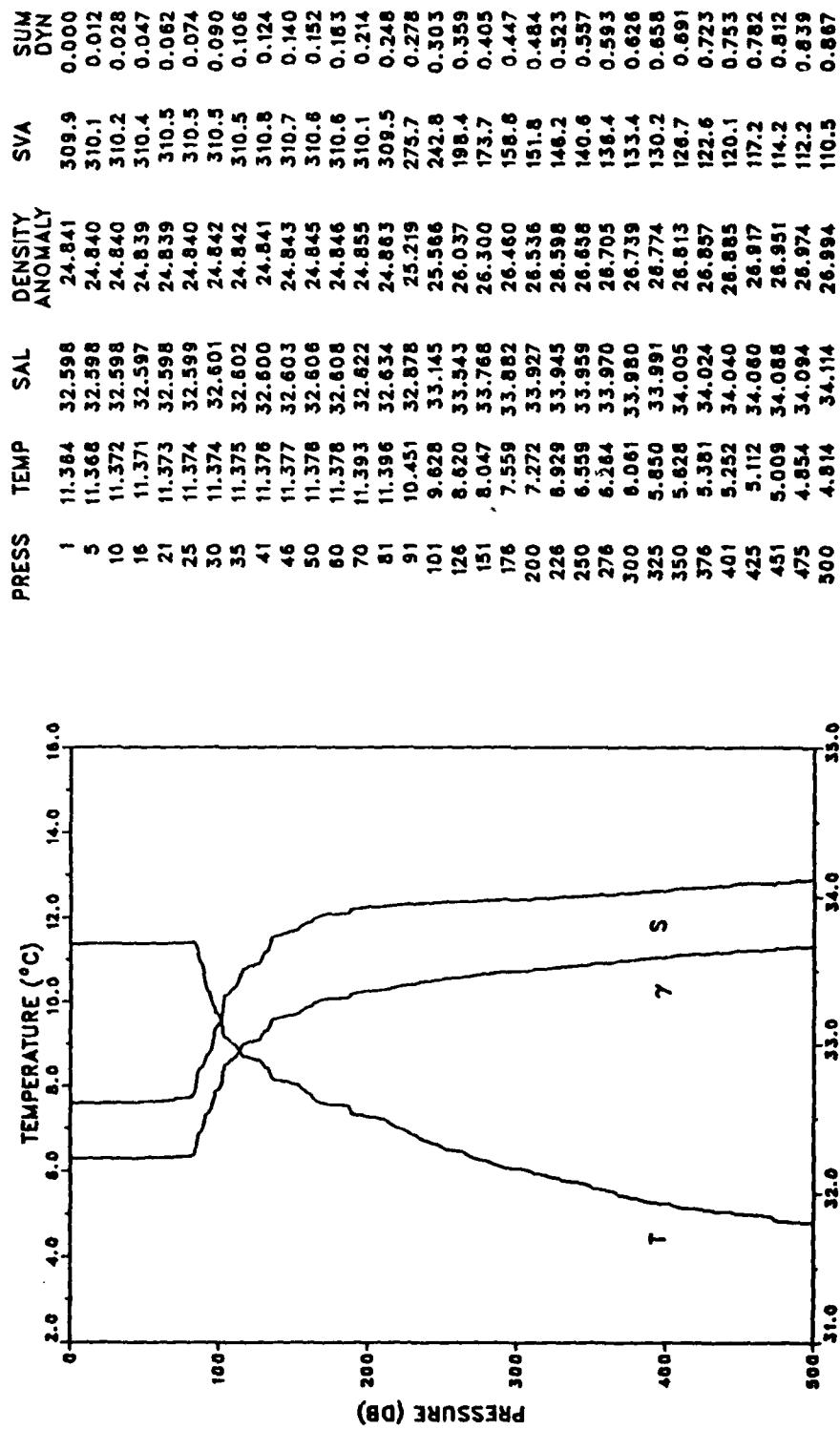
STATION: 51 LAT: 40 0.4 N LON: 125 38.7 W
DATE: 3/21/87 TIME: 2148Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.785	32.692	24.837	310.3	0.000
5	11.785	32.692	24.837	310.4	0.012
11	11.801	32.690	24.833	310.9	0.031
16	11.799	32.689	24.832	311.1	0.047
21	11.796	32.689	24.833	311.1	0.062
26	11.799	32.689	24.832	311.3	0.078
31	11.791	32.691	24.836	311.1	0.093
35	11.790	32.689	24.834	311.3	0.106
41	11.794	32.692	24.836	311.3	0.124
46	11.801	32.698	24.839	311.1	0.140
50	11.815	32.708	24.843	310.8	0.152
61	11.852	32.727	24.852	310.2	0.187
71	11.927	32.782	24.881	307.7	0.217
81	11.848	32.881	24.973	299.2	0.248
91	11.600	32.926	25.053	291.7	0.277
101	10.869	33.051	25.282	270.0	0.305
126	9.898	33.433	25.746	226.5	0.367
151	8.817	33.644	26.085	194.2	0.420
176	8.308	33.838	26.316	172.7	0.466
200	7.954	33.922	26.434	161.7	0.506
225	7.662	33.975	26.518	154.1	0.545
250	7.330	33.976	26.567	149.7	0.583
276	7.178	34.028	26.629	144.2	0.622
301	6.840	33.995	26.676	139.7	0.657
326	6.304	33.982	26.710	136.6	0.692
350	6.058	34.003	26.758	132.2	0.724
375	5.815	34.021	26.802	128.1	0.757
400	5.460	34.008	26.835	125.0	0.788
425	5.283	34.023	26.868	122.1	0.819
451	5.211	34.050	26.898	119.5	0.850
475	4.994	34.053	26.925	116.9	0.879
500	5.122	34.124	26.967	113.4	0.908

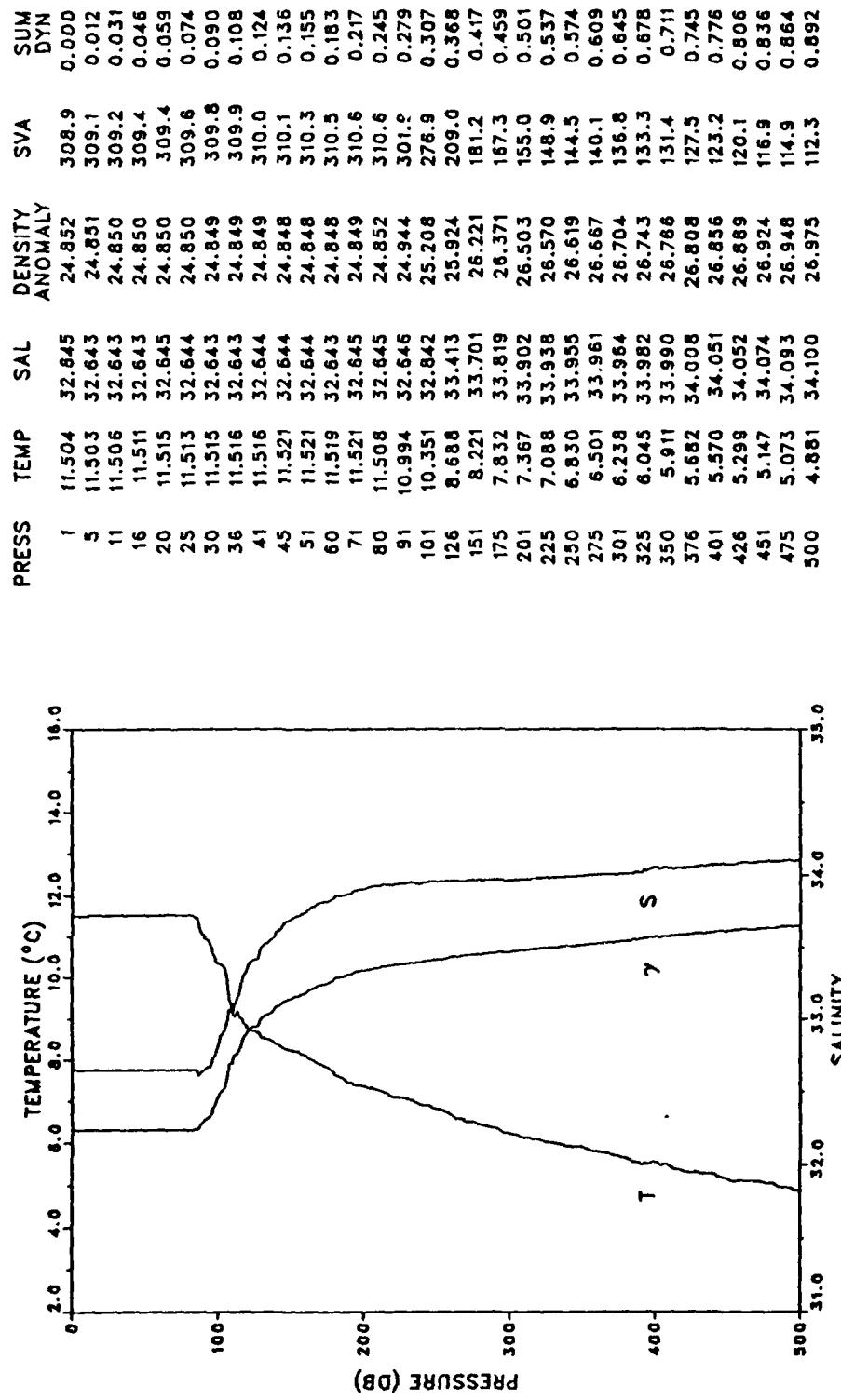


STATION: 52 LAT: 40 0.4 N LON: 125 48.7 W
DATE: 3/21/87 TIME: 2312



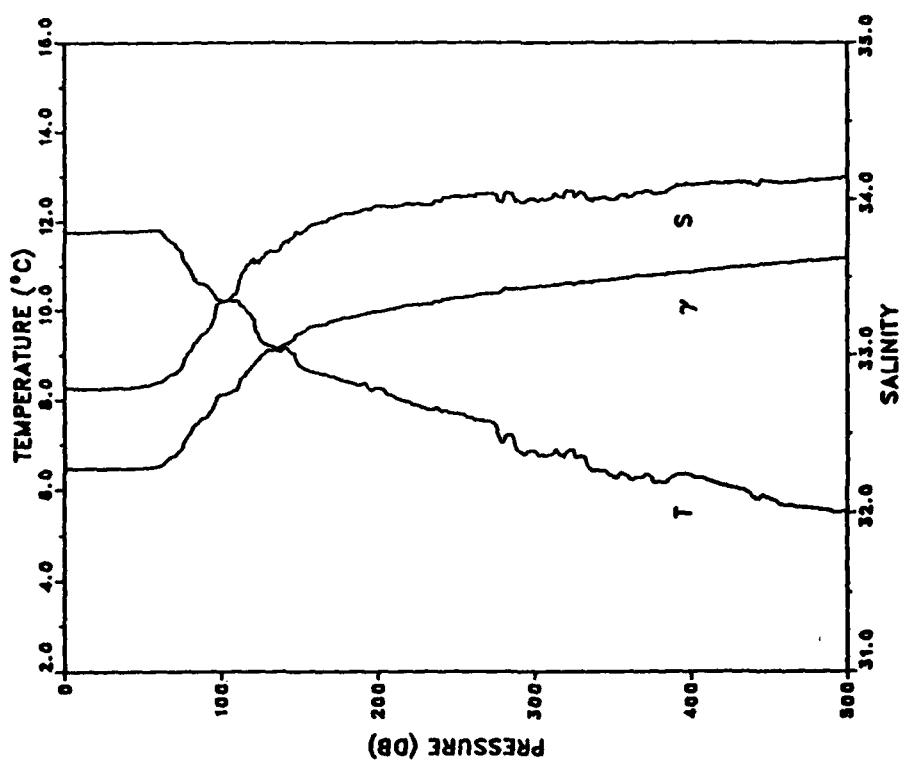


STATION: 54 LAT: 40 0.0 N LON: 126 10.2 W
DATE: 3/22/87 TIME: 0236Z

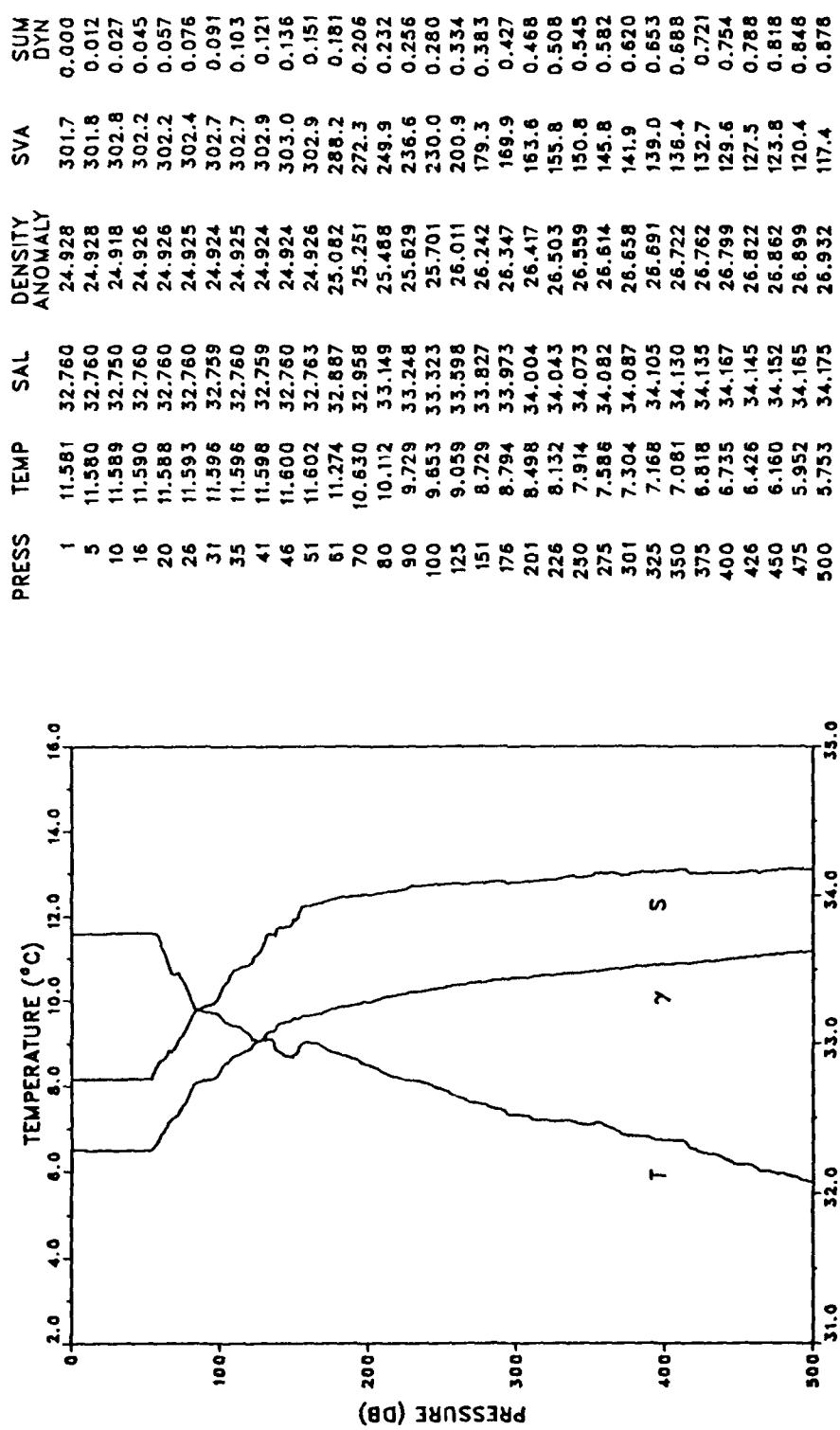


STATION: 55 LAT: 39 53.4 N LON: 126 5.4 W
DATE: 3/22/87 TIME: 0353Z

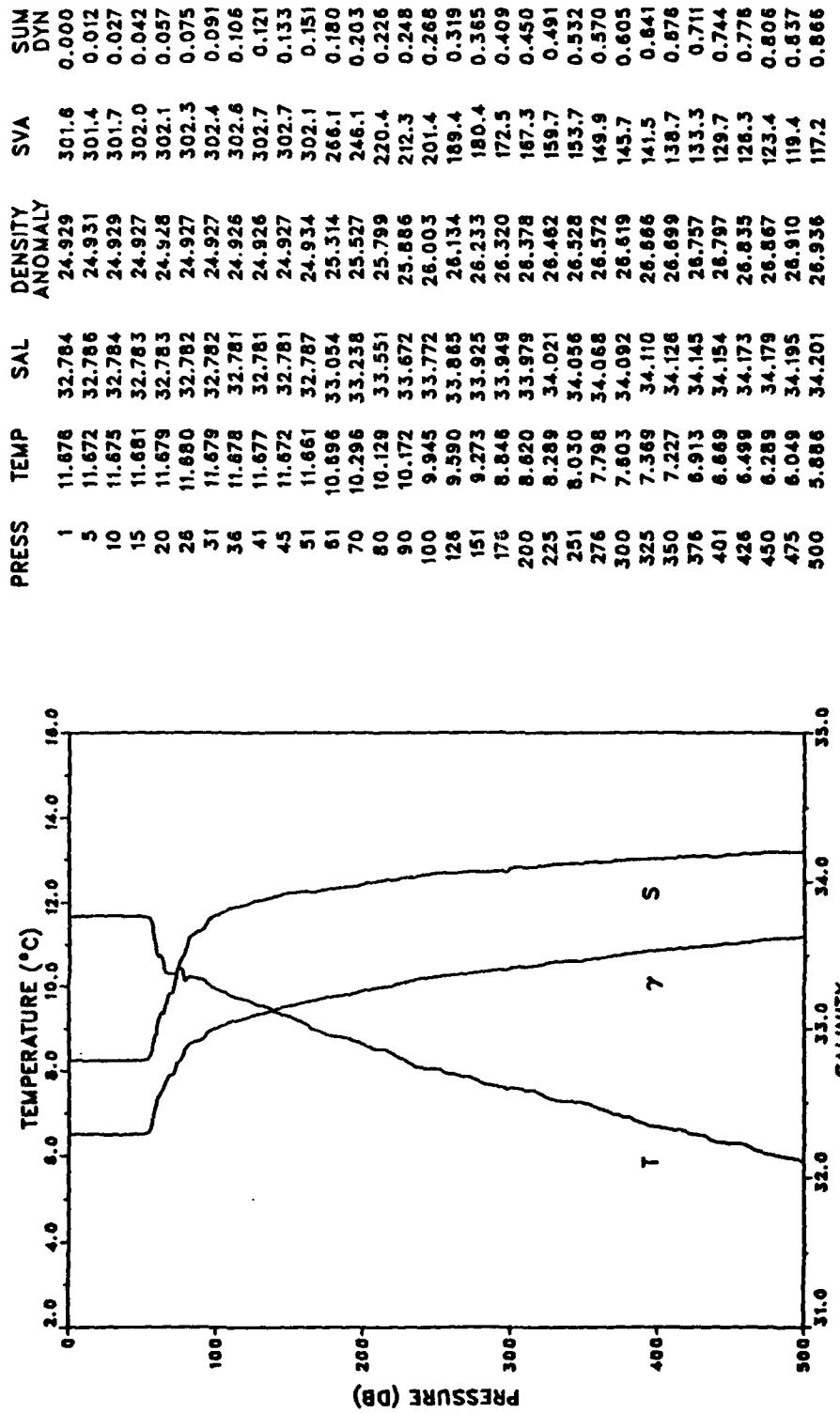
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.753	32.785	24.916	302.8	0.000
6	11.756	32.784	24.914	303.1	0.015
11	11.756	32.784	24.914	303.2	0.030
16	11.760	32.784	24.913	303.4	0.045
20	11.762	32.783	24.912	303.6	0.058
26	11.767	32.784	24.912	303.7	0.076
31	11.771	32.787	24.914	303.7	0.091
36	11.773	32.788	24.914	303.7	0.108
41	11.774	32.787	24.913	303.9	0.121
45	11.779	32.792	24.916	303.7	0.134
51	11.789	32.800	24.921	303.4	0.152
61	11.793	32.826	24.940	301.8	0.182
70	11.496	32.879	25.036	292.9	0.209
80	10.929	33.022	25.248	272.8	0.237
91	10.554	33.146	25.411	257.5	0.266
100	10.216	33.335	25.816	238.2	0.289
126	9.282	33.615	25.989	203.1	0.346
151	8.744	33.779	26.203	183.1	0.394
176	8.430	33.901	26.346	169.8	0.438
200	8.254	33.959	26.419	163.3	0.478
226	7.871	33.969	26.483	157.5	0.520
250	7.690	34.016	26.547	151.8	0.557
275	7.424	34.028	26.594	147.6	0.595
301	6.809	33.990	26.649	142.3	0.632
325	6.870	34.049	26.688	139.1	0.666
350	6.280	33.992	26.721	135.9	0.700
375	6.254	34.042	26.763	132.2	0.734
400	6.320	34.093	26.795	129.8	0.767
426	6.053	34.105	26.839	125.6	0.800
450	5.823	34.114	26.875	122.2	0.829
476	5.614	34.124	26.908	119.2	0.861
500	5.521	34.140	26.932	117.1	0.889



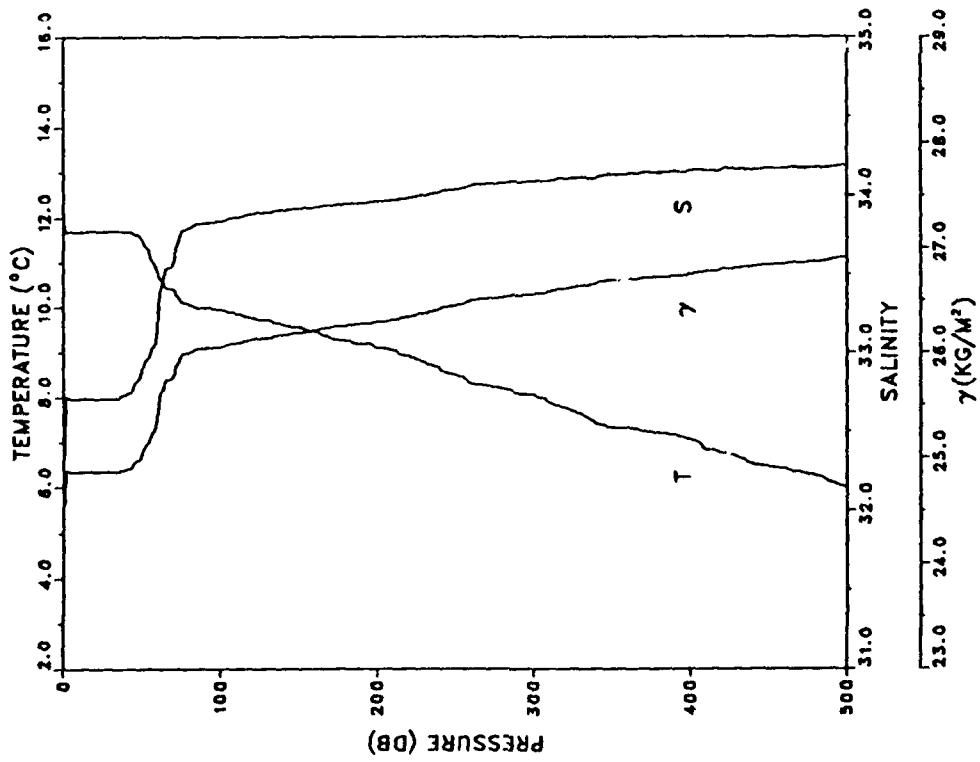
STATION: 56 LAT: 39 46.4 N LON: 125 59.6 W
DATE: 3/22/87 TIME: 0518Z



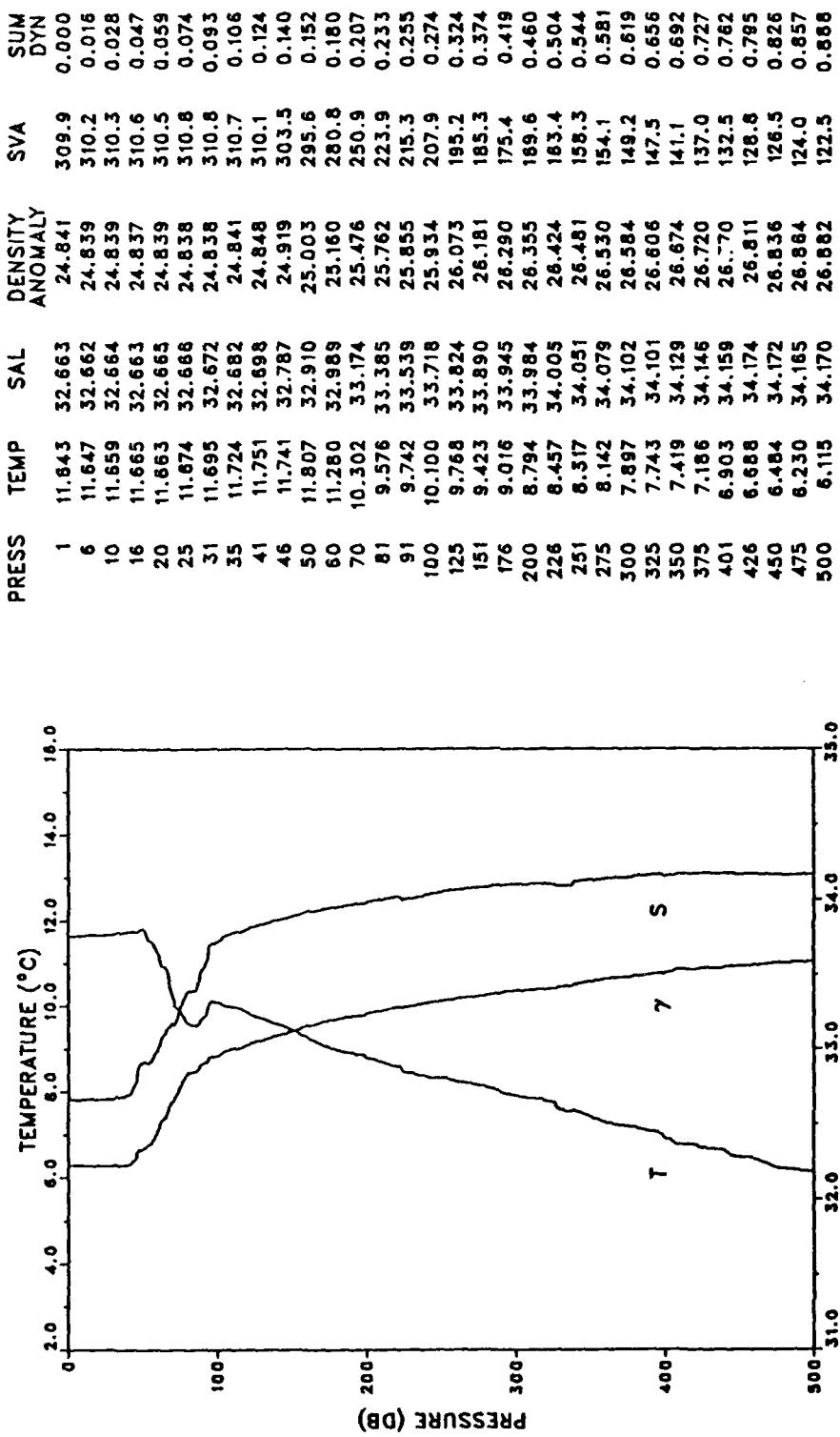
STATION: 57 LAT: 39 39.0 N LON: 125 56.0 W
DATE: 3/22/87 TIME: 0648Z



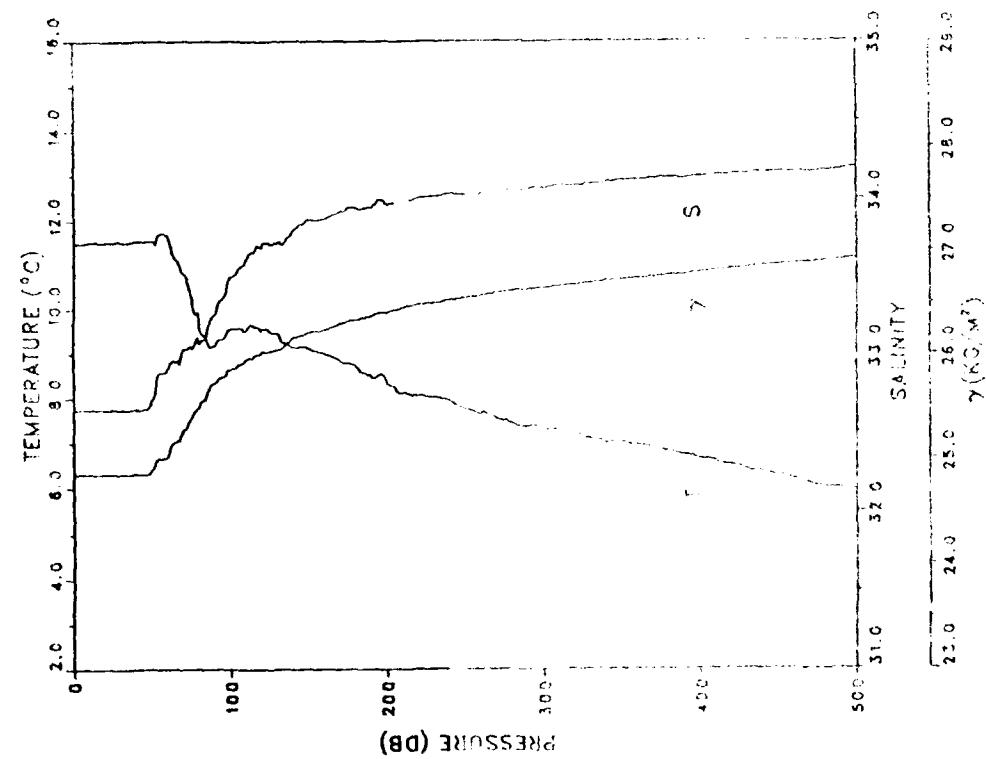
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.826	32.355	24.568	335.9	0.000
6	11.680	32.705	24.567	307.6	0.016
11	11.681	32.705	24.867	307.7	0.031
15	11.699	32.706	24.864	308.0	0.044
20	11.698	32.705	24.864	308.2	0.059
26	11.698	32.704	24.863	308.4	0.078
31	11.698	32.705	24.864	308.4	0.093
35	11.696	32.706	24.865	308.4	0.105
40	11.692	32.731	24.885	306.6	0.121
46	11.622	32.802	24.953	300.3	0.139
50	11.523	32.874	25.027	293.3	0.151
60	10.808	33.128	25.352	262.5	0.179
71	10.372	33.592	25.790	221.1	0.205
80	10.070	33.791	25.996	201.6	0.224
90	9.984	33.824	26.037	198.0	0.244
100	9.951	33.836	26.052	196.8	0.264
125	9.717	33.890	26.133	189.5	0.312
150	9.551	33.914	26.179	185.6	0.359
176	9.273	33.941	26.246	179.7	0.407
200	9.096	33.961	26.290	175.9	0.449
225	8.822	33.991	26.356	169.9	0.493
250	8.478	34.036	26.445	161.8	0.534
276	8.213	34.074	26.515	155.5	0.575
300	8.043	34.087	26.551	152.4	0.612
326	7.684	34.111	26.622	145.9	0.651
351	7.321	34.131	26.690	139.6	0.687
375	7.218	34.142	26.713	137.7	0.720
400	7.062	34.156	26.746	134.9	0.754
426	6.734	34.171	26.802	129.7	0.788
450	6.460	34.169	26.837	126.4	0.819
475	6.288	34.173	26.863	124.2	0.851
500	6.015	34.188	26.909	119.8	0.881



STATION: 59 LAT: 39 25.3 N LON: 125 46.4 W
DATE: 3/22/87 TIME: 0948Z

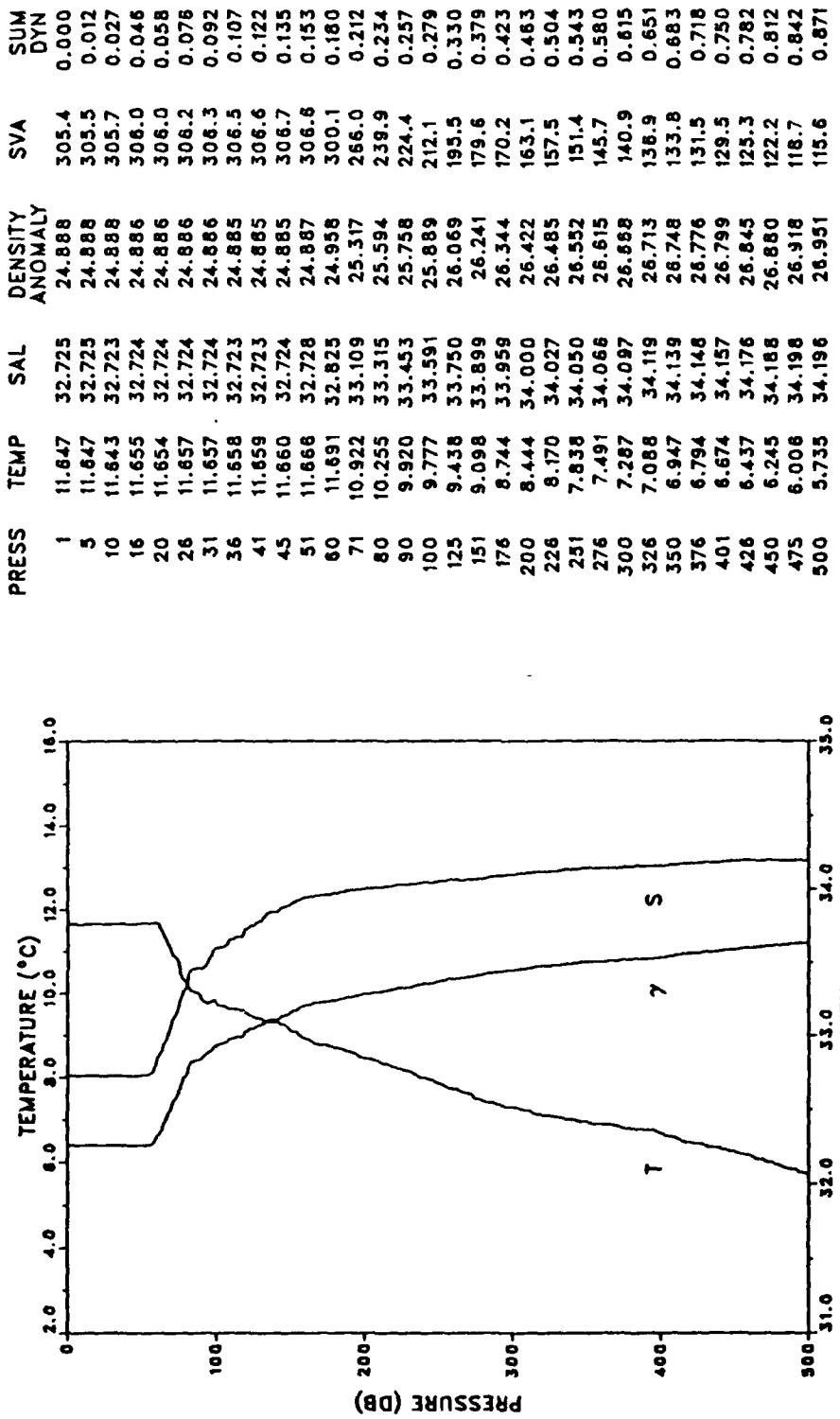


STATION: 60 LAT: 39 18.1 N LON: 125 42.1 W
DATE: 3/22/87 TIME: 1123Z

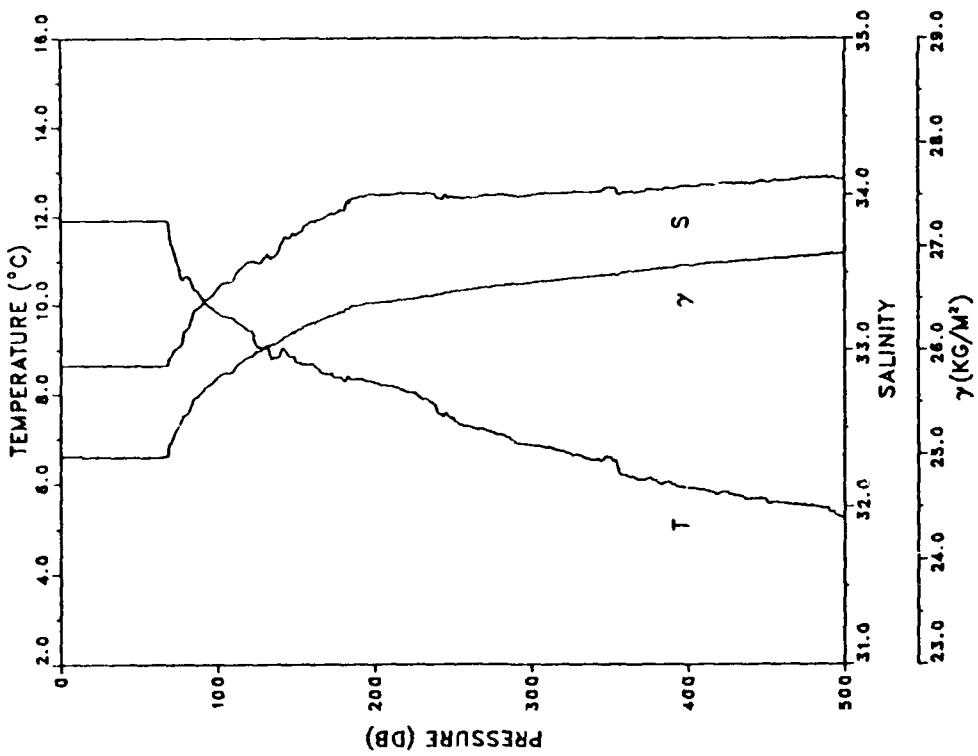


STATION: 61 LAT: 33 $^{\circ}\text{N}$ LON: 125 $^{\circ}\text{E}$ DATE: 3/22/87
 DATE: 3/22/87 TIME: 1312

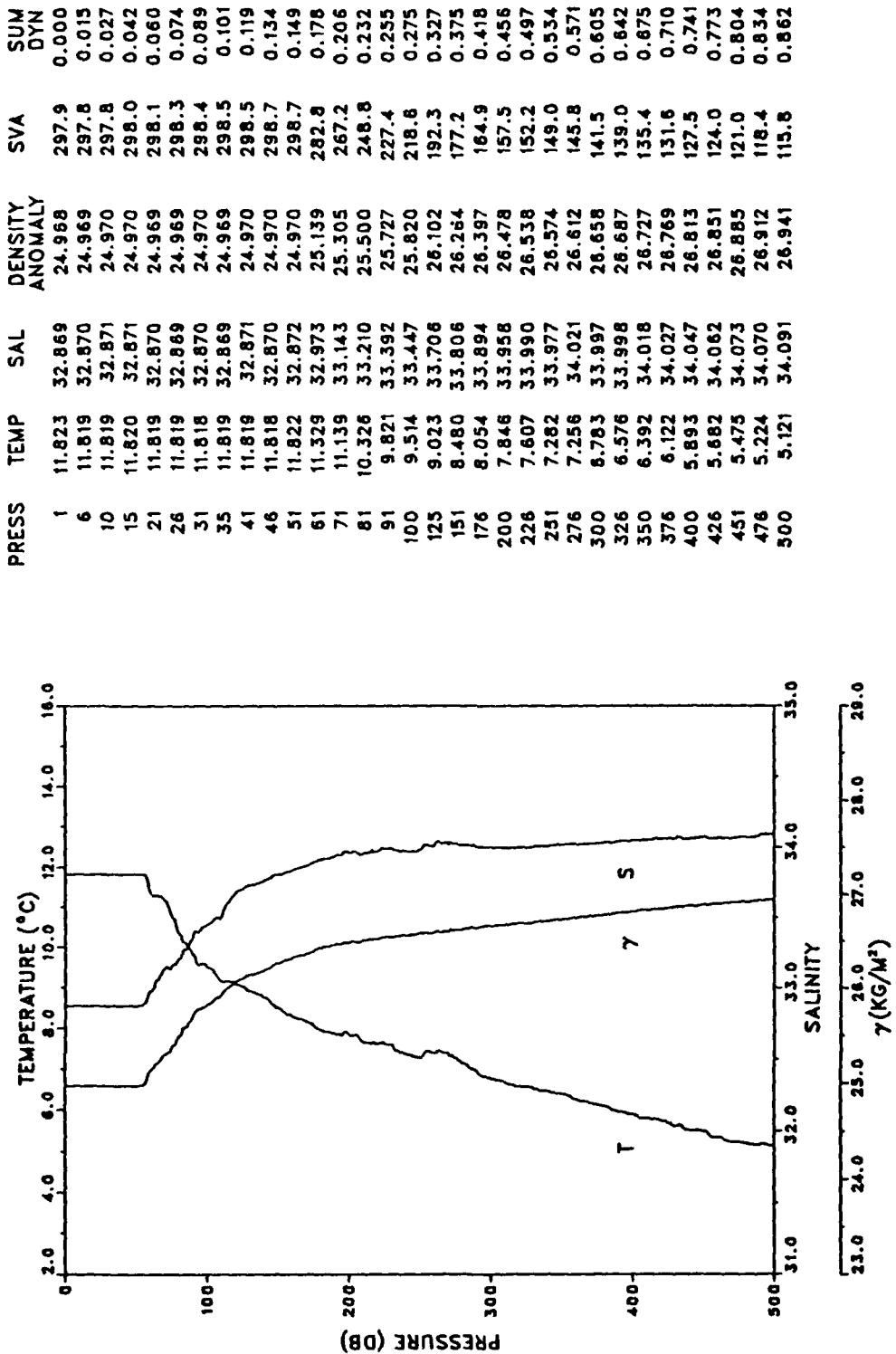
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.503	32.642	24.850	309.1	0.000
5	11.505	32.645	24.852	309.0	0.012
10	11.517	32.642	24.848	309.5	0.028
15	11.520	32.643	24.848	309.6	0.043
21	11.511	32.642	24.849	309.6	0.062
26	11.521	32.644	24.848	309.7	0.077
30	11.525	32.643	24.847	310.0	0.090
36	11.525	32.643	24.847	310.1	0.108
40	11.528	32.643	24.846	310.2	0.121
46	11.548	32.652	24.850	310.0	0.139
51	11.527	32.719	24.906	304.8	0.155
60	11.674	32.889	25.011	295.0	0.182
70	10.810	33.011	25.261	271.4	0.213
80	9.694	33.062	25.490	249.6	0.236
91	9.224	33.266	25.725	227.4	0.262
100	9.577	33.501	25.852	215.6	0.282
125	9.509	33.706	26.023	199.8	0.334
151	9.114	33.866	26.112	182.3	0.384
176	8.798	33.946	26.325	172.0	0.428
200	8.331	33.958	26.405	164.6	0.469
226	8.037	34.006	26.490	157.0	0.510
251	7.753	34.023	26.544	152.0	0.449
275	7.515	34.059	26.606	146.5	0.586
301	7.317	34.069	26.642	143.4	0.623
326	7.137	34.084	26.578	140.2	0.657
351	7.014	34.116	26.722	136.3	0.693
375	6.856	34.135	26.757	133.3	0.725
401	5.673	34.139	26.790	130.4	0.759
426	5.463	34.155	26.825	127.2	0.791
451	6.277	34.168	26.860	124.1	0.822
476	6.047	34.176	26.396	120.8	0.852
500	5.960	34.198	26.524	118.4	0.882



PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.905	32.894	24.972	297.5	0.000
5	11.905	32.894	24.972	297.5	0.012
10	11.907	32.895	24.972	297.6	0.027
16	11.911	32.893	24.970	298.0	0.045
20	11.910	32.894	24.971	298.0	0.057
25	11.911	32.893	24.970	298.2	0.071
31	11.915	32.894	24.970	298.3	0.089
35	11.916	32.894	24.970	298.4	0.101
40	11.916	32.894	24.970	298.5	0.116
46	11.916	32.893	24.969	298.7	0.134
51	11.917	32.893	24.969	298.8	0.149
60	11.916	32.893	24.969	299.0	0.176
71	11.347	32.968	25.132	283.7	0.208
81	10.641	33.134	25.386	259.7	0.235
90	10.165	33.289	25.589	240.5	0.258
100	9.810	33.396	25.732	227.1	0.281
125	9.086	33.562	25.979	204.0	0.335
151	8.699	33.749	26.186	184.7	0.385
176	8.355	33.881	26.342	170.2	0.430
200	8.252	34.001	26.452	160.2	0.470
226	8.017	34.007	26.492	156.8	0.511
250	7.442	33.981	26.555	150.9	0.548
276	7.124	33.992	26.608	146.1	0.586
301	6.843	33.996	26.649	142.4	0.622
326	6.644	34.010	26.687	139.0	0.657
351	6.568	34.038	26.719	136.3	0.692
376	6.125	34.039	26.778	130.7	0.725
400	5.905	34.052	26.816	127.3	0.756
425	5.813	34.076	26.846	124.6	0.788
450	5.625	34.077	26.870	122.5	0.819
475	5.533	34.105	26.903	119.6	0.849
500	5.248	34.101	26.934	116.6	0.878

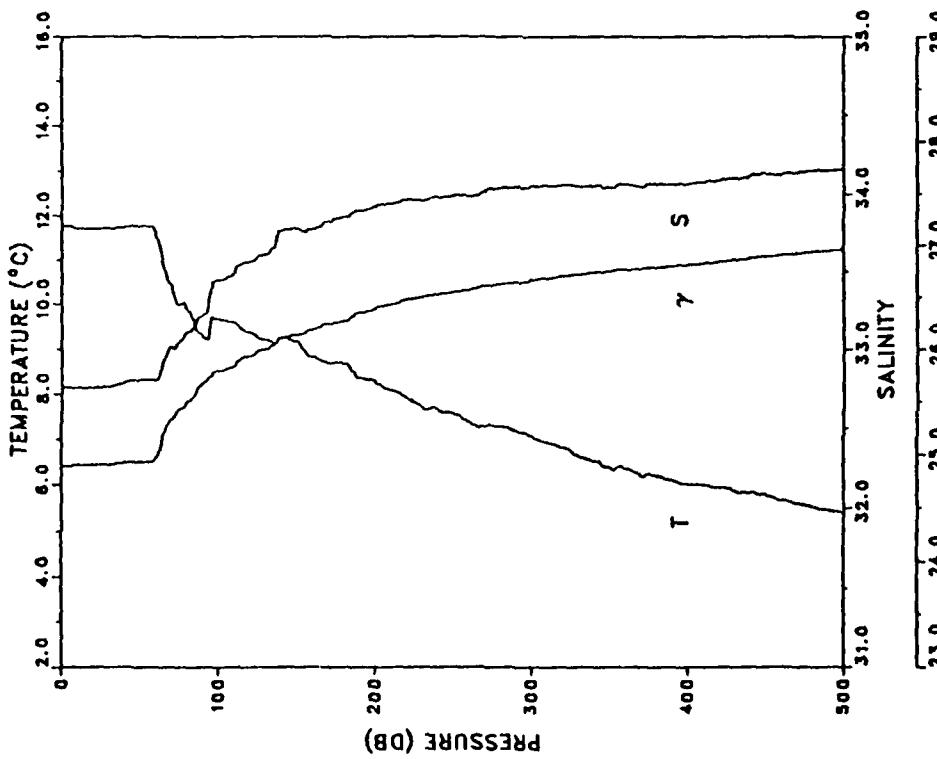


STATION: 63 LAT: 38 57.0 N LON: 125 28.1 W
DATE: 3/22/87 TIME: 1553Z



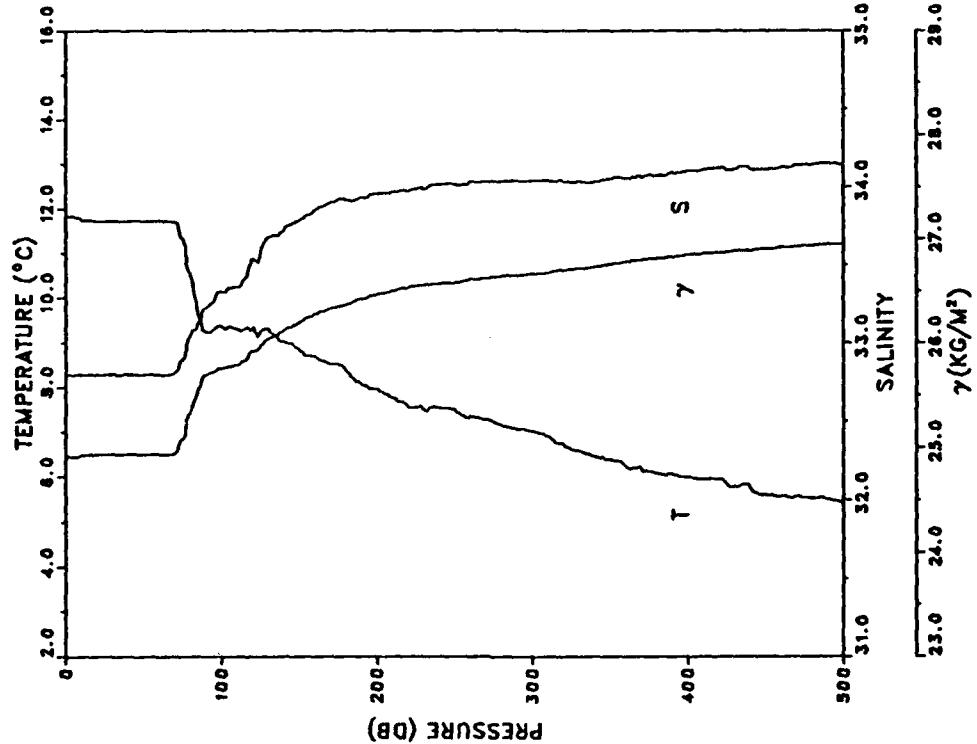
STATION: 64 LAT: 38 49.7 N LON: 125 23.4 W
 DATE: 3/22/87 TIME: 1712

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.772	32.759	24.892	305.1	0.000
5	11.759	32.755	24.891	305.2	0.012
10	11.711	32.754	24.899	304.6	0.027
15	11.704	32.754	24.900	304.6	0.043
20	11.700	32.755	24.902	304.5	0.058
25	11.700	32.756	24.903	304.6	0.076
31	11.705	32.761	24.906	304.4	0.091
36	11.717	32.774	24.914	303.8	0.107
41	11.737	32.790	24.922	303.0	0.122
46	11.750	32.797	24.925	302.9	0.137
50	11.761	32.805	24.930	302.6	0.149
60	11.639	32.803	24.950	300.8	0.179
70	10.447	33.014	25.326	265.1	0.208
81	9.839	33.110	25.504	248.4	0.236
90	9.305	33.214	25.672	232.5	0.257
100	9.659	33.440	25.791	221.4	0.280
126	9.229	33.597	25.983	203.6	0.335
150	9.150	33.769	26.131	190.0	0.383
175	8.707	33.837	26.254	178.7	0.429
200	8.265	33.910	26.379	167.1	0.472
226	7.790	33.960	26.488	157.0	0.514
250	7.547	33.985	26.543	152.1	0.551
275	7.293	34.028	26.613	145.7	0.588
301	7.055	34.050	26.663	141.2	0.626
325	6.756	34.052	26.705	137.4	0.659
351	6.356	34.038	26.747	133.5	0.694
375	6.236	34.060	26.780	130.6	0.726
400	6.013	34.063	26.811	127.8	0.758
426	5.922	34.094	26.847	124.7	0.791
450	5.781	34.126	26.889	120.8	0.821
475	5.561	34.140	26.927	117.3	0.850
500	5.392	34.155	26.960	114.4	0.879

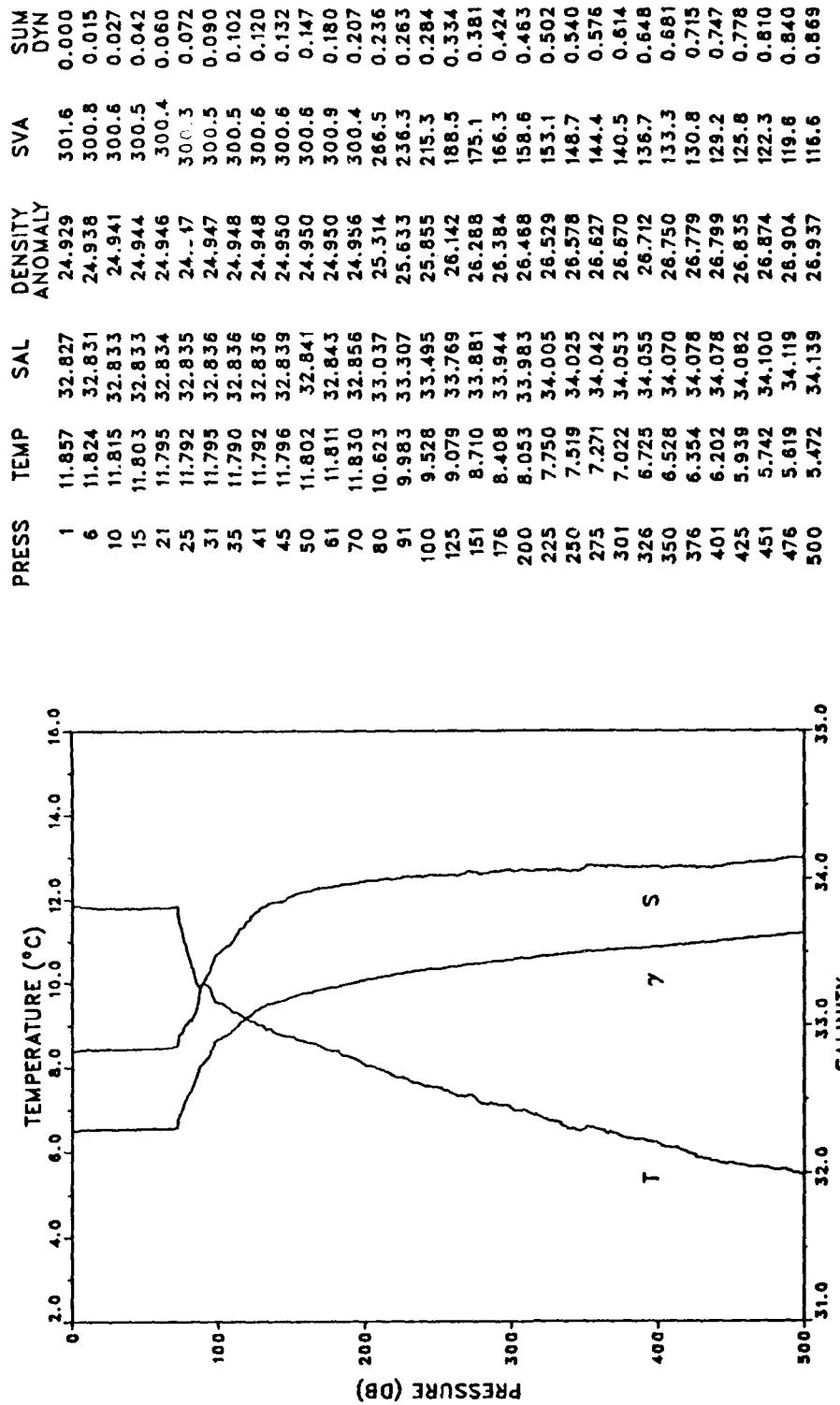


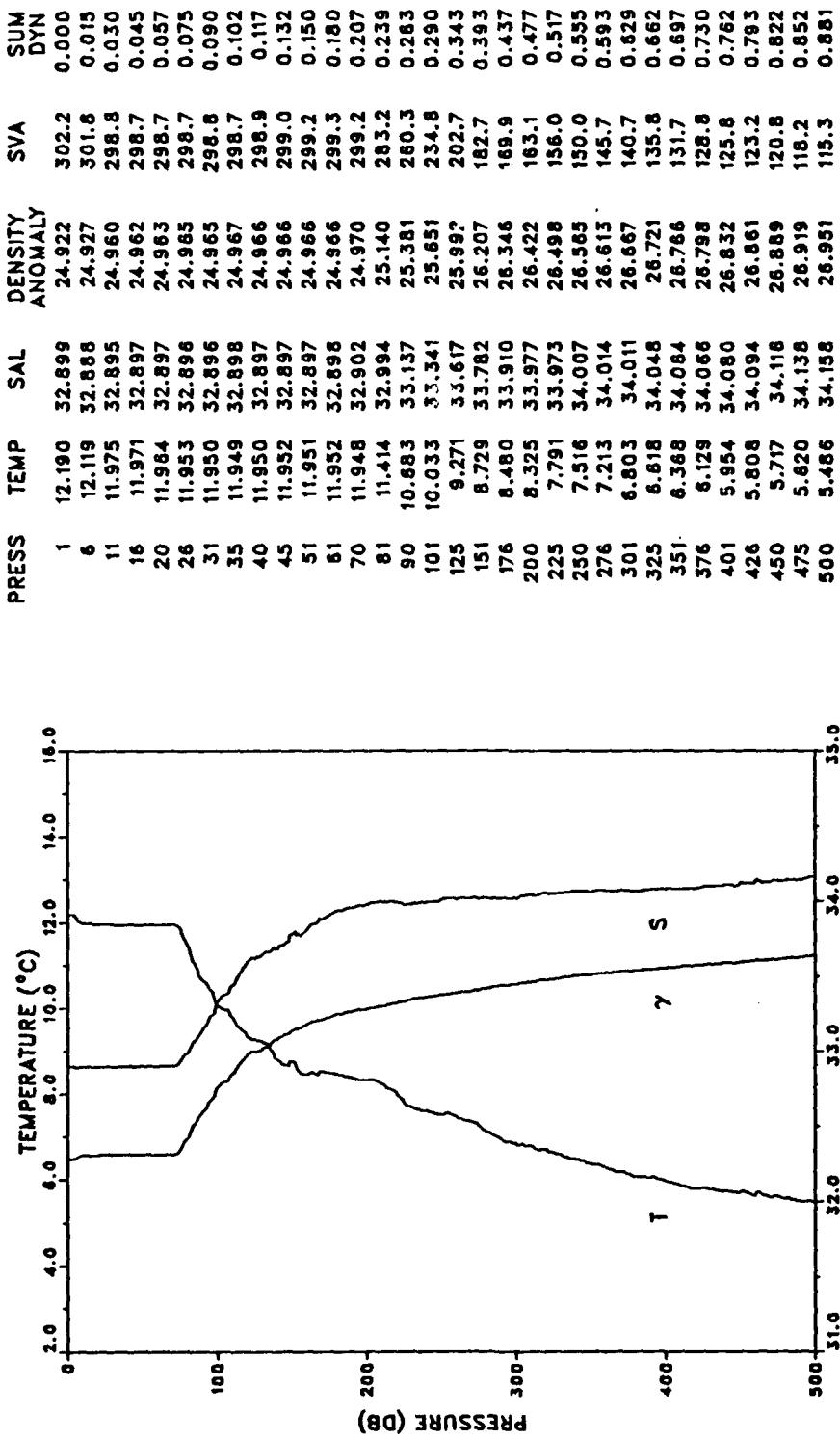
STATION: 65 LAT: 38 43.5 N LON: 125 17.9 W
DATE: 3/22/87 TIME: 1823Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.827	32.793	24.908	303.5	0.000
5	11.827	32.793	24.908	303.6	0.012
11	11.742	32.792	24.923	302.3	0.030
16	11.732	32.795	24.927	302.1	0.045
21	11.721	32.795	24.929	302.0	0.061
25	11.720	32.795	24.929	302.0	0.073
30	11.720	32.795	24.929	302.1	0.088
35	11.720	32.794	24.929	302.3	0.103
41	11.720	32.795	24.929	302.4	0.121
46	11.718	32.794	24.929	302.5	0.136
51	11.719	32.795	24.930	302.6	0.151
61	11.712	32.792	24.929	302.9	0.181
70	11.705	32.804	24.939	302.1	0.209
80	10.557	33.038	25.326	265.4	0.237
90	9.242	33.220	25.686	231.1	0.262
100	9.350	33.322	25.749	225.4	0.285
125	9.207	33.559	25.957	206.0	0.339
150	8.843	33.782	26.189	184.4	0.387
176	8.503	33.921	26.351	169.4	0.433
201	7.934	33.950	26.459	159.4	0.475
226	7.555	33.986	26.542	151.7	0.513
250	7.498	34.016	26.574	149.1	0.550
276	7.213	34.029	26.625	144.6	0.588
301	7.014	34.039	26.660	141.5	0.623
325	6.626	34.029	26.705	137.3	0.657
351	6.391	34.053	26.754	132.8	0.692
373	6.130	34.075	26.805	128.1	0.723
401	5.992	34.101	26.843	124.7	0.756
425	5.833	34.106	26.869	122.5	0.786
451	5.599	34.110	26.899	119.7	0.817
476	5.546	34.141	26.930	117.1	0.847
500	5.411	34.143	26.948	115.5	0.875

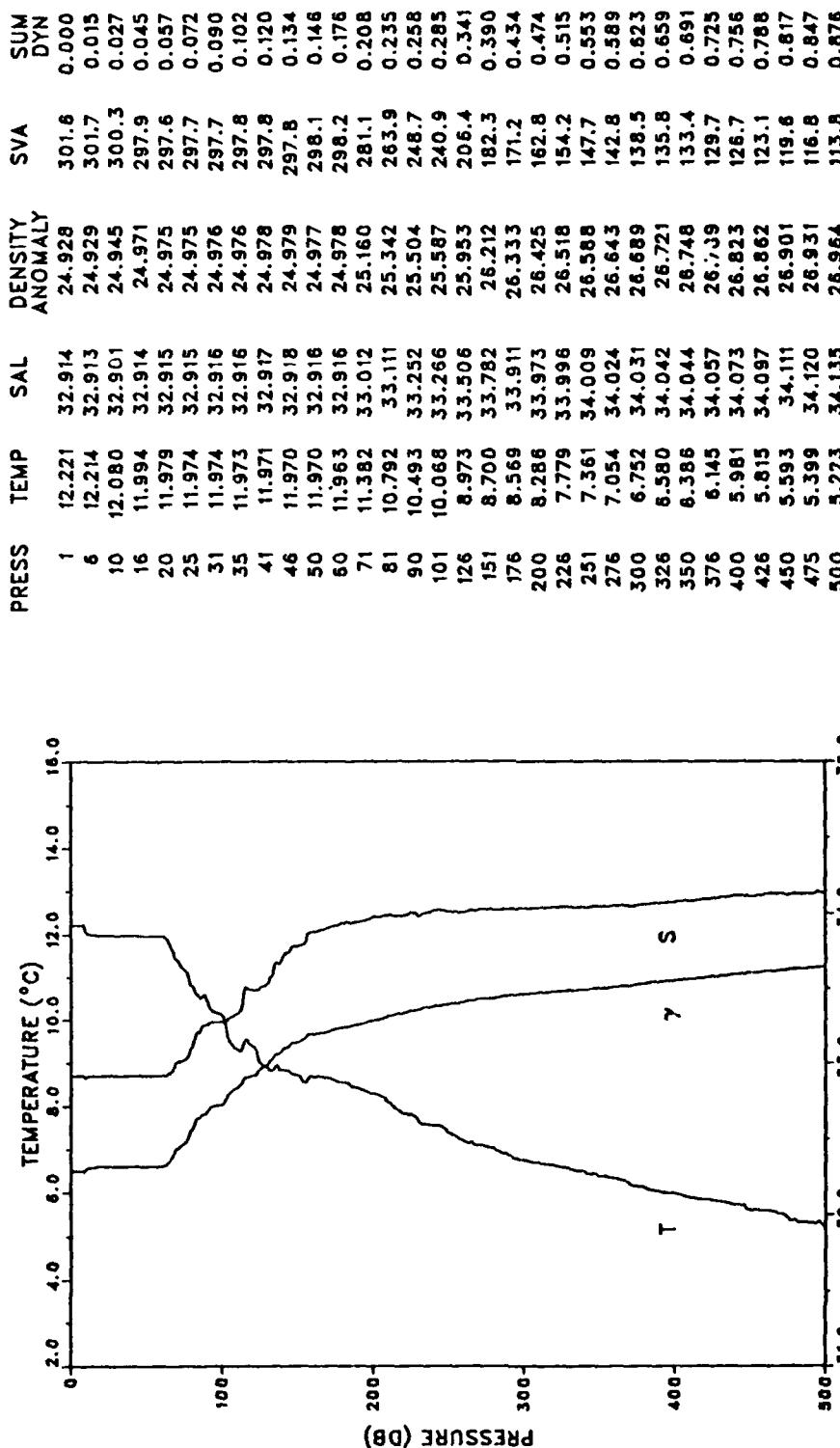


STATION: 66 LAT: 38 47.0 N LON: 125 10.4 W
DATE: 3/22/87 TIME: 1936Z



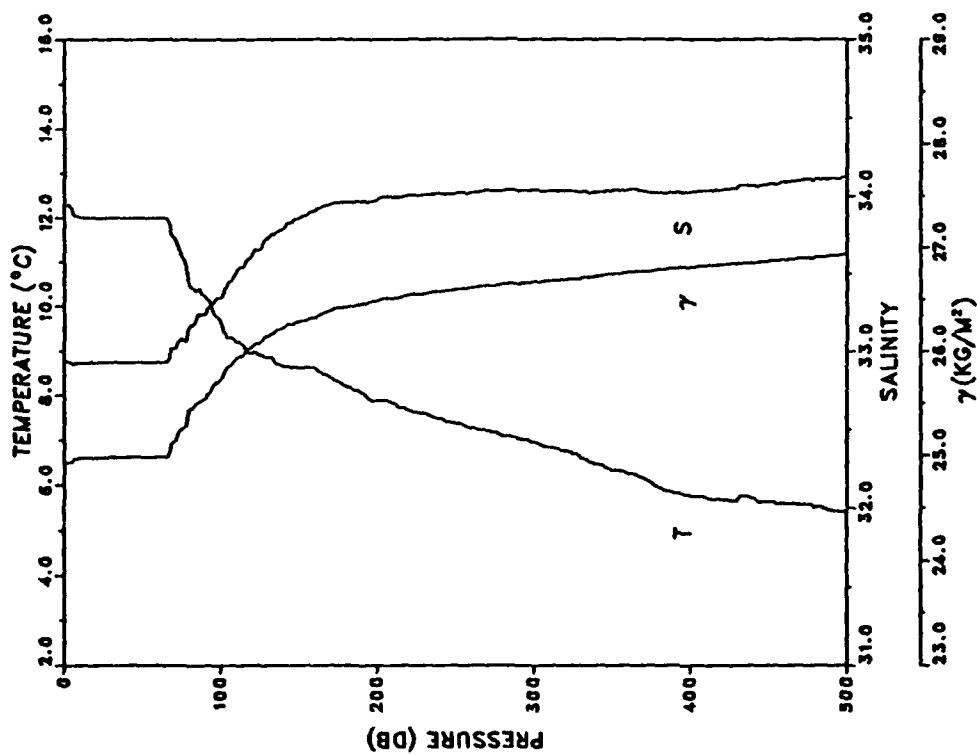


STATION: 68 LAT: 38 53.5 N LON: 124 53.5 W
DATE: 3/22/87 TIME: 2153Z

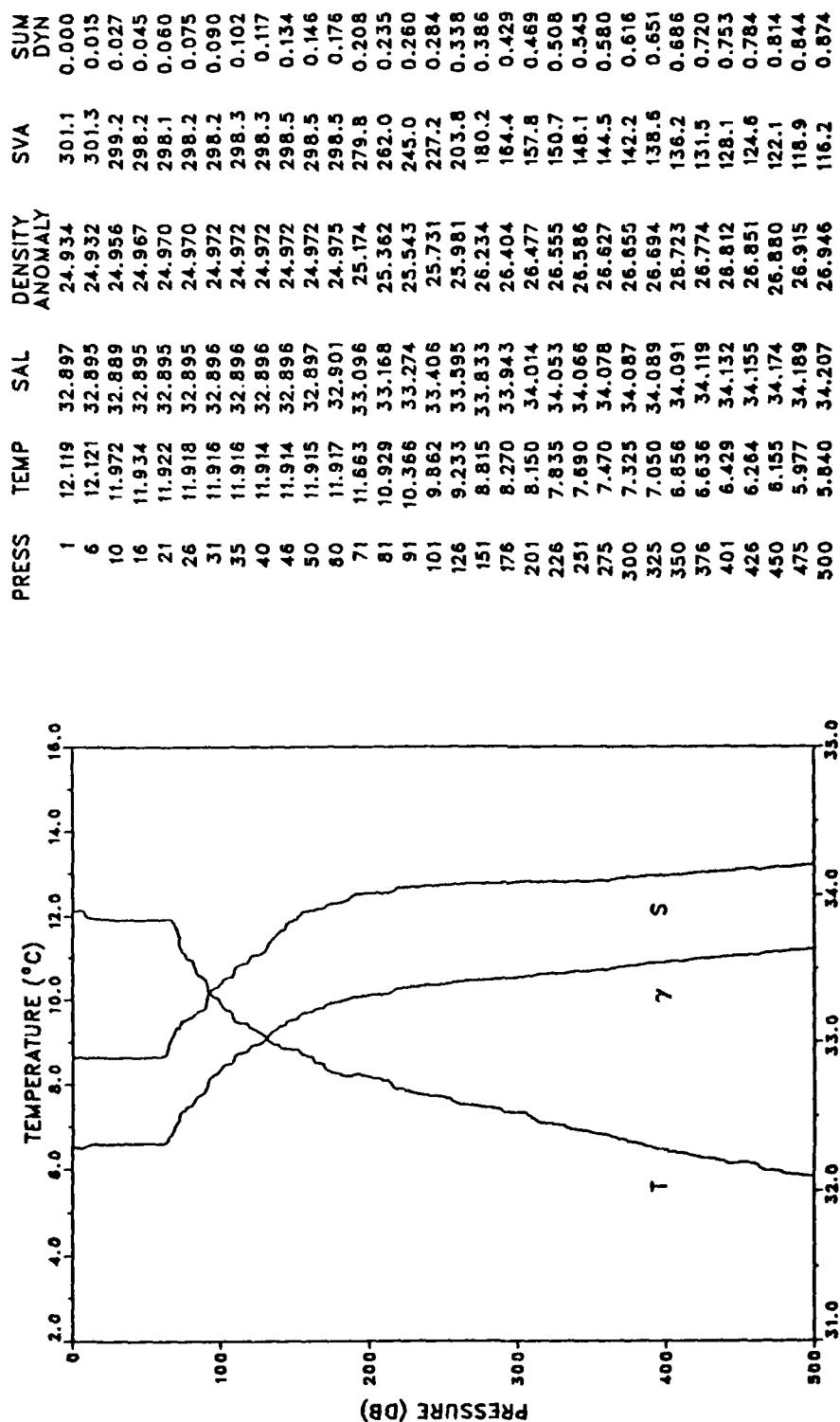


STATION: 69 LAT: 38 56.9 N LON: 124 44.9 W
DATE: 3/22/87 TIME: 2300Z

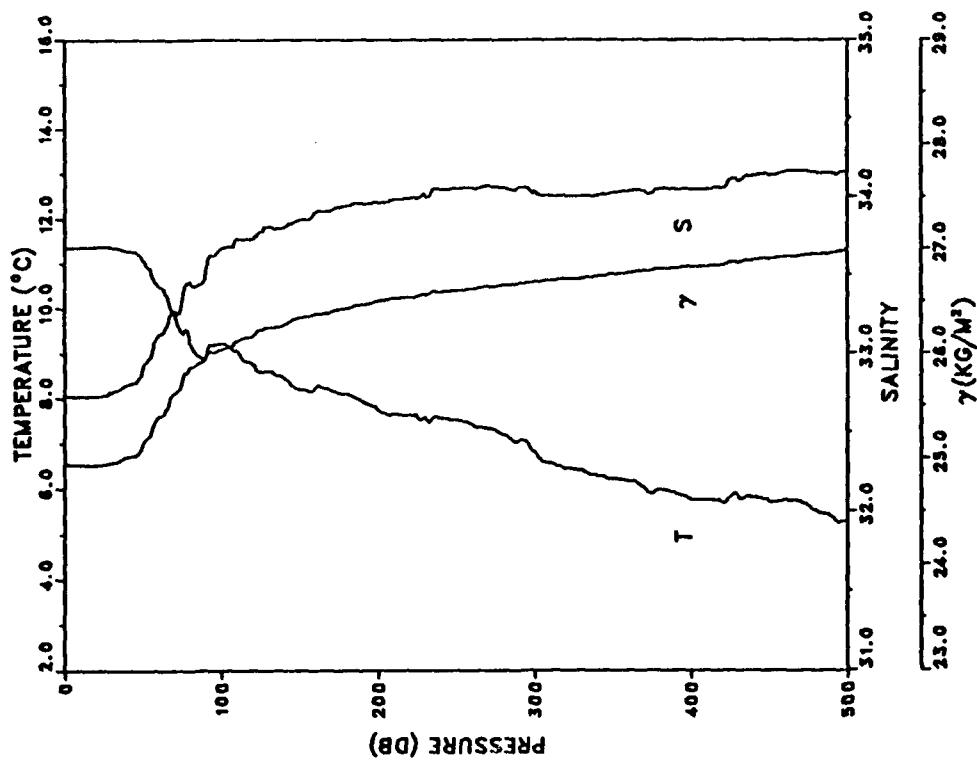
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	12.279	32.927	24.927	301.7	0.000
6	12.083	32.909	24.950	299.6	0.015
10	12.020	32.922	24.972	297.6	0.027
15	12.001	32.921	24.975	297.5	0.042
21	12.000	32.924	24.978	297.4	0.060
26	11.998	32.924	24.978	297.5	0.073
31	11.993	32.924	24.979	297.5	0.089
35	11.988	32.924	24.980	297.5	0.101
40	11.988	32.923	24.979	297.7	0.116
45	11.988	32.924	24.980	297.7	0.131
50	11.987	32.924	24.980	297.8	0.146
61	11.987	32.924	24.980	298.0	0.179
71	11.541	33.017	25.135	283.5	0.208
80	10.483	33.153	25.428	255.6	0.232
91	10.198	33.240	25.545	244.7	0.260
100	9.848	33.348	25.719	228.2	0.281
125	8.902	33.652	26.078	194.5	0.334
150	8.617	33.857	26.283	175.4	0.380
176	8.285	33.956	26.412	163.6	0.424
200	7.888	33.973	26.484	157.0	0.463
226	7.617	34.005	26.549	151.2	0.503
251	7.363	34.018	26.595	147.1	0.540
275	7.179	34.032	26.632	143.9	0.575
301	6.944	34.036	26.667	140.7	0.612
326	6.692	34.032	26.698	138.0	0.647
351	6.333	34.035	26.748	133.4	0.681
375	6.044	34.017	26.770	131.3	0.712
400	5.761	34.024	26.811	127.6	0.745
426	5.556	34.045	26.841	125.0	0.778
451	5.633	34.077	26.869	122.6	0.808
476	5.582	34.106	26.898	120.1	0.839
500	5.395	34.118	26.930	117.2	0.867



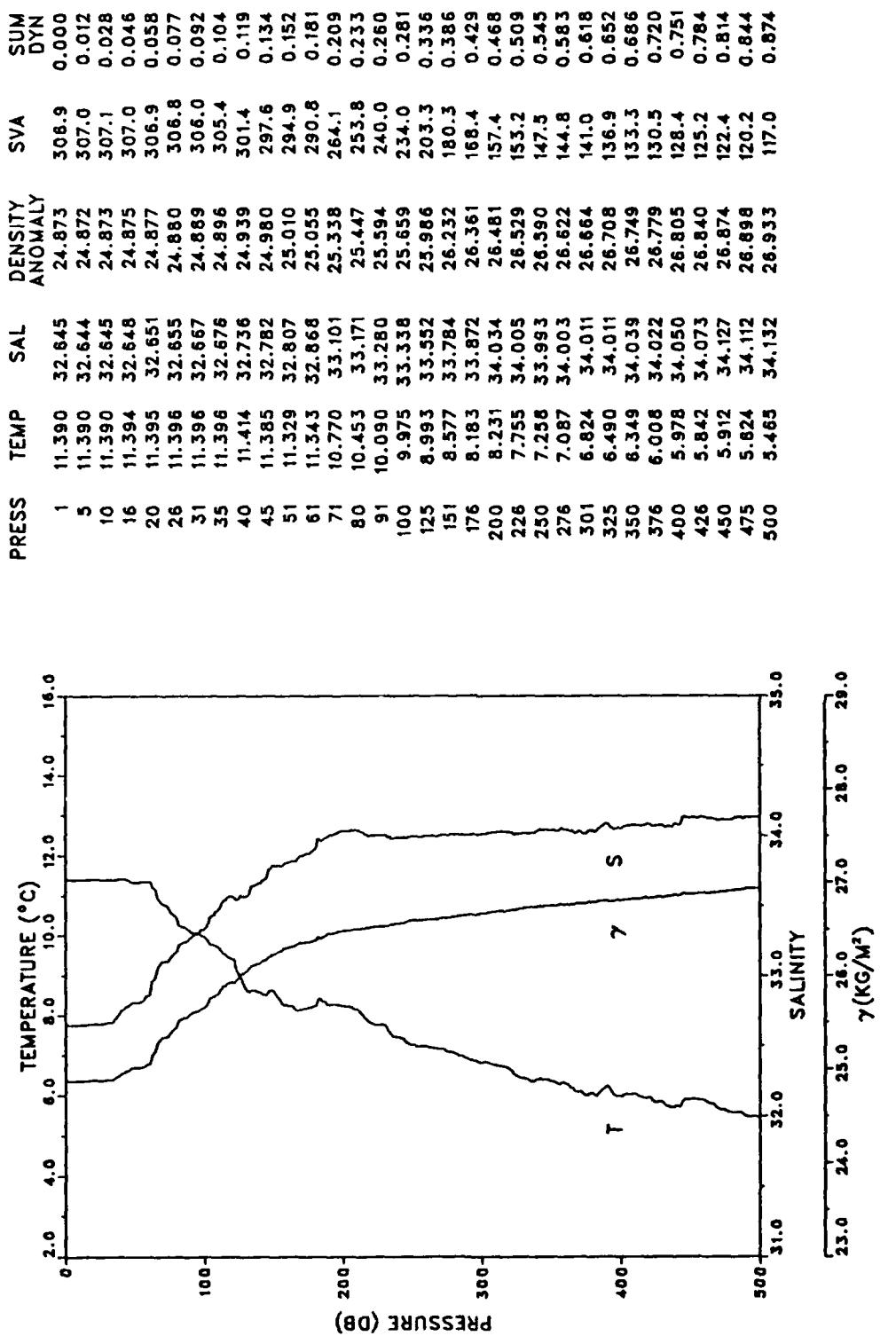
STATION: 690 LAT: 39 0.1 N
DATE: 3/23/87 LON: 124 35.4 W
TIME: 0018Z



PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.360	32.727	24.942	300.3	0.000
5	11.362	32.724	24.939	300.6	0.012
10	11.360	32.725	24.941	300.8	0.027
15	11.375	32.727	24.939	300.9	0.045
20	11.376	32.730	24.942	300.8	0.057
25	11.373	32.734	24.945	300.5	0.075
30	11.362	32.757	24.965	298.7	0.090
35	11.332	32.777	24.986	296.9	0.105
40	11.278	32.803	25.016	294.1	0.120
45	11.252	32.823	25.036	292.3	0.134
50	11.072	32.898	25.127	283.8	0.146
60	10.497	33.109	25.392	258.7	0.173
70	9.827	33.267	25.828	236.4	0.200
80	9.311	33.459	25.862	214.2	0.221
90	8.975	33.535	25.975	203.7	0.244
100	9.223	33.673	26.044	197.4	0.264
125	8.589	33.773	26.222	180.8	0.311
150	8.191	33.851	26.343	169.6	0.355
175	8.119	33.934	26.419	162.8	0.395
200	7.732	33.959	26.496	155.8	0.434
225	7.546	33.993	26.549	151.1	0.474
250	7.513	34.051	26.600	146.7	0.510
275	7.262	34.061	26.643	142.9	0.548
300	6.784	34.027	26.682	139.3	0.583
325	6.424	34.004	26.711	136.6	0.616
350	6.212	34.023	26.754	132.7	0.650
375	5.893	34.024	26.795	128.9	0.682
400	5.757	34.045	26.828	125.9	0.716
425	5.830	34.105	26.867	122.7	0.747
450	5.723	34.134	26.903	119.5	0.776
475	5.587	34.155	26.936	116.5	0.806
500	5.267	34.156	26.975	112.8	0.834

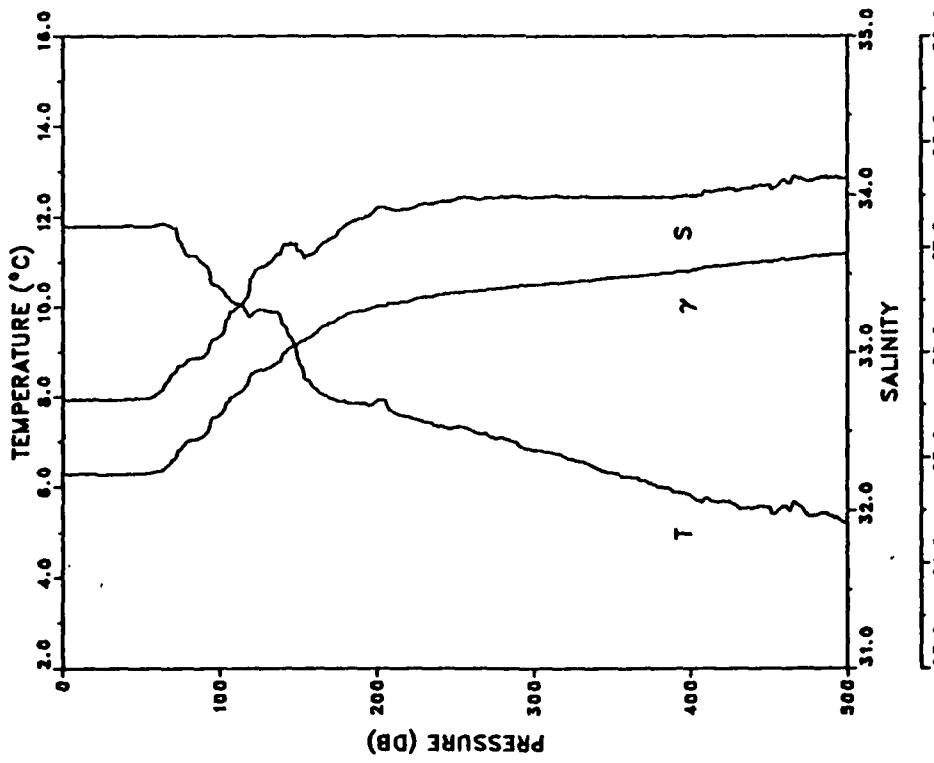


STATION: 73 LAT: 39 23.1 N LON: 124 38.2 W
DATE: 3/23/87 TIME: 1212Z



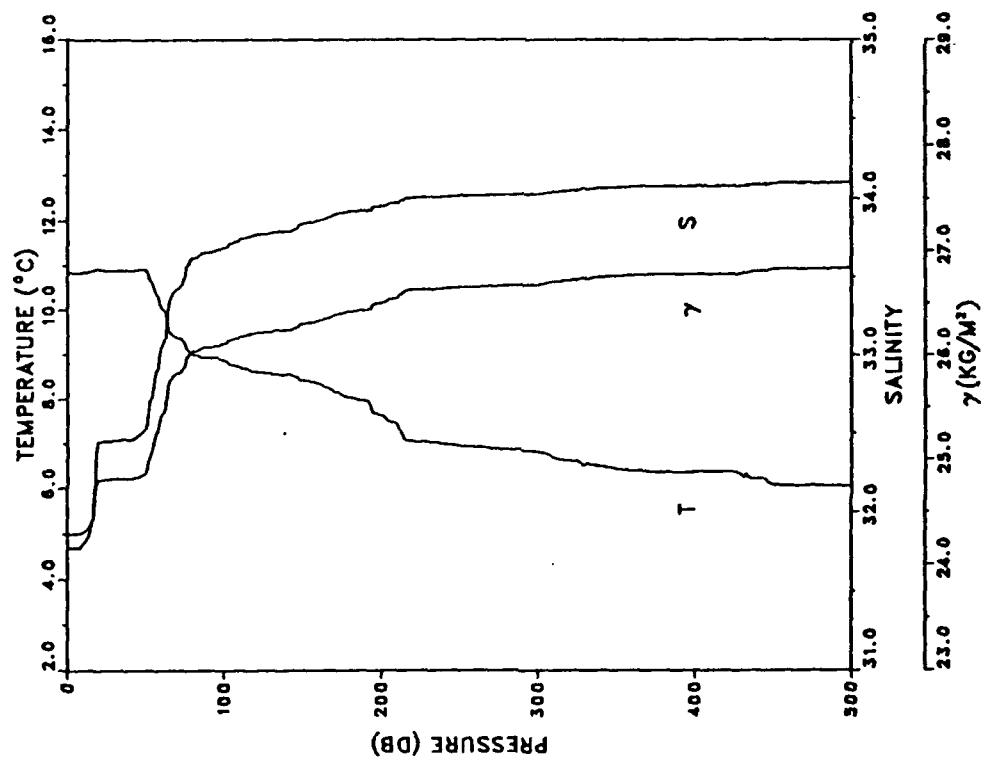
STATION: 74 LAT: 39 42.4 N LON: 124 50.6 W
DATE: 3/23/87 TIME: 1623Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.789	32.695	24.839	310.1	0.000
5	11.790	32.694	24.838	310.3	0.012
10	11.786	32.695	24.840	310.3	0.028
15	11.792	32.697	24.840	310.3	0.043
20	11.795	32.697	24.839	310.5	0.059
25	11.799	32.696	24.838	310.8	0.078
30	11.798	32.696	24.836	310.9	0.093
35	11.799	32.696	24.836	311.0	0.106
40	11.802	32.697	24.838	311.0	0.121
45	11.796	32.702	24.843	310.7	0.140
50	11.792	32.702	24.844	310.7	0.152
60	11.820	32.733	24.863	309.1	0.183
71	11.756	32.868	24.979	298.3	0.217
81	11.143	32.952	25.156	281.6	0.246
91	10.928	32.978	25.214	276.2	0.273
100	10.416	33.101	25.399	258.8	0.298
126	9.937	33.539	25.822	219.0	0.360
151	8.727	33.843	26.102	192.6	0.411
175	7.481	33.755	26.312	172.8	0.455
201	7.922	33.920	26.437	161.4	0.498
225	7.484	33.926	26.505	155.2	0.536
250	7.314	33.970	26.564	150.0	0.575
275	7.075	33.977	26.603	146.5	0.612
301	6.820	33.984	26.643	142.9	0.649
325	6.600	33.983	26.672	140.4	0.683
351	6.306	33.984	26.711	136.8	0.719
375	6.070	33.984	26.741	134.1	0.752
401	5.800	33.990	26.780	130.6	0.786
425	5.687	34.039	26.832	125.8	0.817
450	5.565	34.061	26.864	123.0	0.848
475	5.377	34.084	26.905	119.2	0.878
500	5.193	34.103	26.942	115.8	0.908



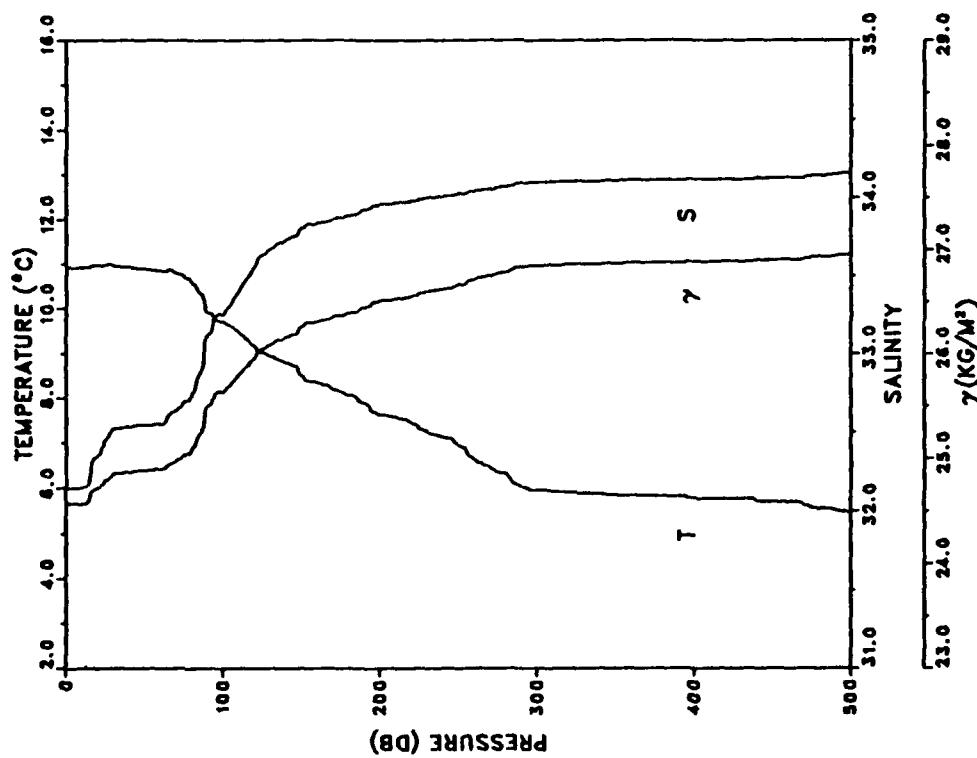
STATION: 76 LAT: 40 0.3 N LON: 125 4.2 W
DATE: 3/24/87 TIME: 0230Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUN DYN
1	10.843	31.772	24.291	362.4	0.000
6	10.844	31.770	24.289	362.6	0.018
10	10.856	31.795	24.306	361.0	0.033
15	10.882	31.880	24.368	355.3	0.051
20	10.926	32.444	24.799	314.3	0.067
26	10.891	32.449	24.809	313.5	0.086
31	10.892	32.452	24.811	313.3	0.102
35	10.900	32.457	24.814	313.2	0.114
41	10.902	32.460	24.816	313.1	0.133
46	10.923	32.487	24.833	311.6	0.149
50	10.913	32.531	24.869	308.2	0.161
61	10.047	33.066	25.435	254.6	0.192
71	9.390	33.427	25.825	217.7	0.216
80	9.012	33.624	26.039	197.4	0.234
91	8.944	33.659	26.077	194.0	0.256
100	8.879	33.689	26.111	190.9	0.273
125	8.609	33.777	26.222	180.8	0.320
151	8.419	33.842	26.302	173.6	0.366
176	8.076	33.914	26.410	163.7	0.408
201	7.634	33.955	26.507	154.8	0.448
226	7.051	34.007	26.630	143.3	0.485
251	6.943	34.016	26.652	141.5	0.521
276	6.886	34.023	26.665	140.6	0.556
301	6.821	34.026	26.676	139.8	0.591
325	6.610	34.050	26.723	135.6	0.624
350	6.453	34.071	26.761	132.3	0.657
375	6.372	34.077	26.776	131.1	0.690
401	6.375	34.078	26.776	131.4	0.724
426	6.384	34.078	26.775	131.9	0.757
451	6.090	34.098	26.829	126.9	0.790
476	6.085	34.098	26.829	127.1	0.821
500	6.061	34.099	26.833	127.0	0.852



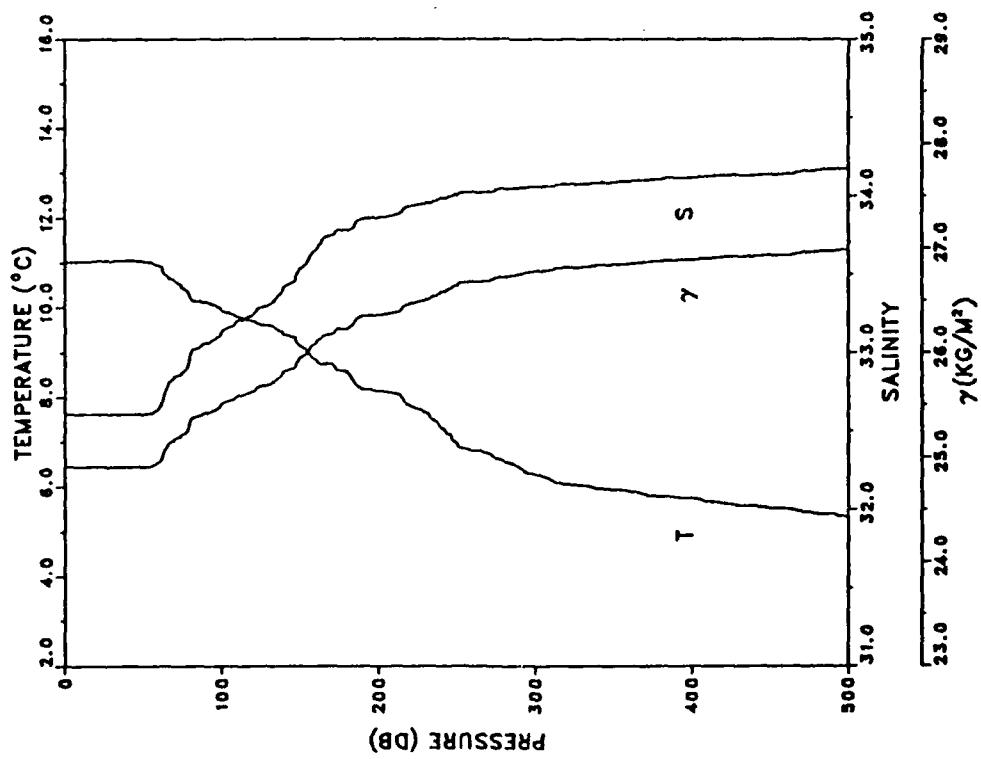
STATION: 77 LAT: 40 22.4 N LON: 124 34.5 W
DATE: 3/24/87 TIME: 0653Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	10.917	32.145	24.568	335.9	0.000
6	10.917	32.144	24.567	336.1	0.017
10	10.921	32.143	24.566	336.3	0.030
16	10.943	32.234	24.633	330.1	0.050
20	10.959	32.340	24.711	322.7	0.063
26	10.992	32.457	24.798	314.6	0.082
31	10.945	32.521	24.856	309.1	0.098
35	10.940	32.524	24.859	308.9	0.110
40	10.935	32.530	24.864	308.5	0.126
45	10.900	32.540	24.878	307.2	0.141
51	10.883	32.541	24.882	307.0	0.160
60	10.844	32.548	24.894	306.0	0.187
70	10.793	32.633	24.970	299.1	0.217
80	10.598	32.730	25.079	288.8	0.247
91	9.904	33.127	25.506	248.4	0.276
100	9.721	33.246	25.629	236.8	0.298
126	9.010	33.634	26.047	197.5	0.355
151	8.472	33.802	26.262	177.4	0.402
175	8.146	33.866	26.362	168.3	0.443
200	7.631	33.957	26.509	154.6	0.483
226	7.309	33.989	26.580	148.1	0.523
250	6.942	34.023	26.657	140.9	0.557
276	6.335	34.065	26.771	130.2	0.593
300	5.956	34.096	26.844	123.4	0.623
325	5.899	34.100	26.854	122.7	0.654
350	5.847	34.107	26.866	121.8	0.684
375	5.830	34.110	26.871	121.7	0.715
401	5.776	34.116	26.882	120.9	0.746
426	5.769	34.118	26.885	121.0	0.777
450	5.700	34.124	26.898	119.9	0.806
475	5.558	34.140	26.928	117.3	0.835
500	5.458	34.157	26.953	115.1	0.864



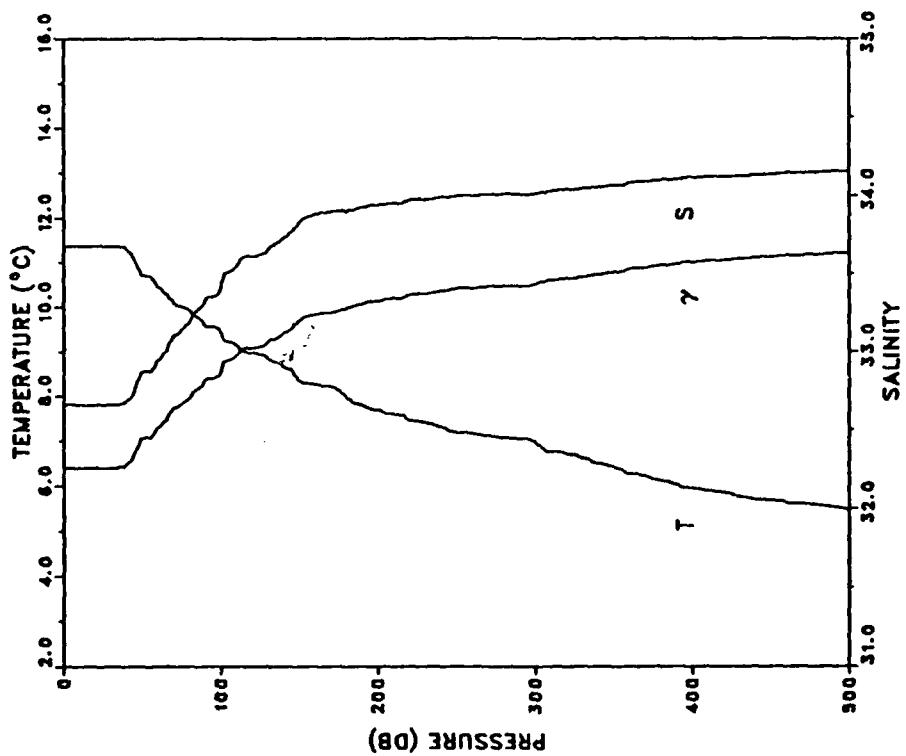
STATION: 771 LAT: 40 22.5 N LON: 124 43.5 W
DATE: 3/24/87 TIME: 0818Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.025	32.607	24.909	303.5	0.000
5	11.025	32.607	24.909	303.6	0.012
10	11.031	32.607	24.908	303.8	0.027
15	11.041	32.607	24.906	304.1	0.046
21	11.043	32.607	24.905	304.2	0.061
26	11.043	32.606	24.905	304.4	0.076
31	11.043	32.607	24.905	304.4	0.091
35	11.043	32.606	24.905	304.6	0.103
40	11.044	32.607	24.905	304.6	0.119
45	11.042	32.607	24.906	304.7	0.134
51	11.026	32.608	24.909	304.5	0.152
60	10.934	32.640	24.950	300.7	0.179
71	10.568	32.850	25.178	279.3	0.211
80	10.201	32.983	25.344	263.6	0.236
91	10.102	33.061	25.421	256.4	0.264
100	9.934	33.134	25.506	248.5	0.287
125	9.618	35.286	25.677	232.7	0.347
151	9.124	35.539	25.955	206.7	0.404
176	8.600	33.779	26.225	181.4	0.453
200	8.133	33.859	26.358	169.0	0.495
225	7.733	33.943	26.483	157.4	0.536
250	6.977	33.998	26.633	143.3	0.573
276	6.628	34.038	26.711	136.0	0.610
300	6.276	34.059	26.774	130.2	0.641
325	6.059	34.075	26.814	126.6	0.674
351	5.939	34.087	26.839	124.5	0.706
376	5.799	34.103	26.869	121.9	0.737
401	5.742	34.118	26.888	120.3	0.767
425	5.607	34.133	26.916	117.8	0.796
450	5.535	34.137	26.928	116.9	0.825
476	5.431	34.161	26.960	114.2	0.855
500	5.315	34.177	26.986	111.8	0.882

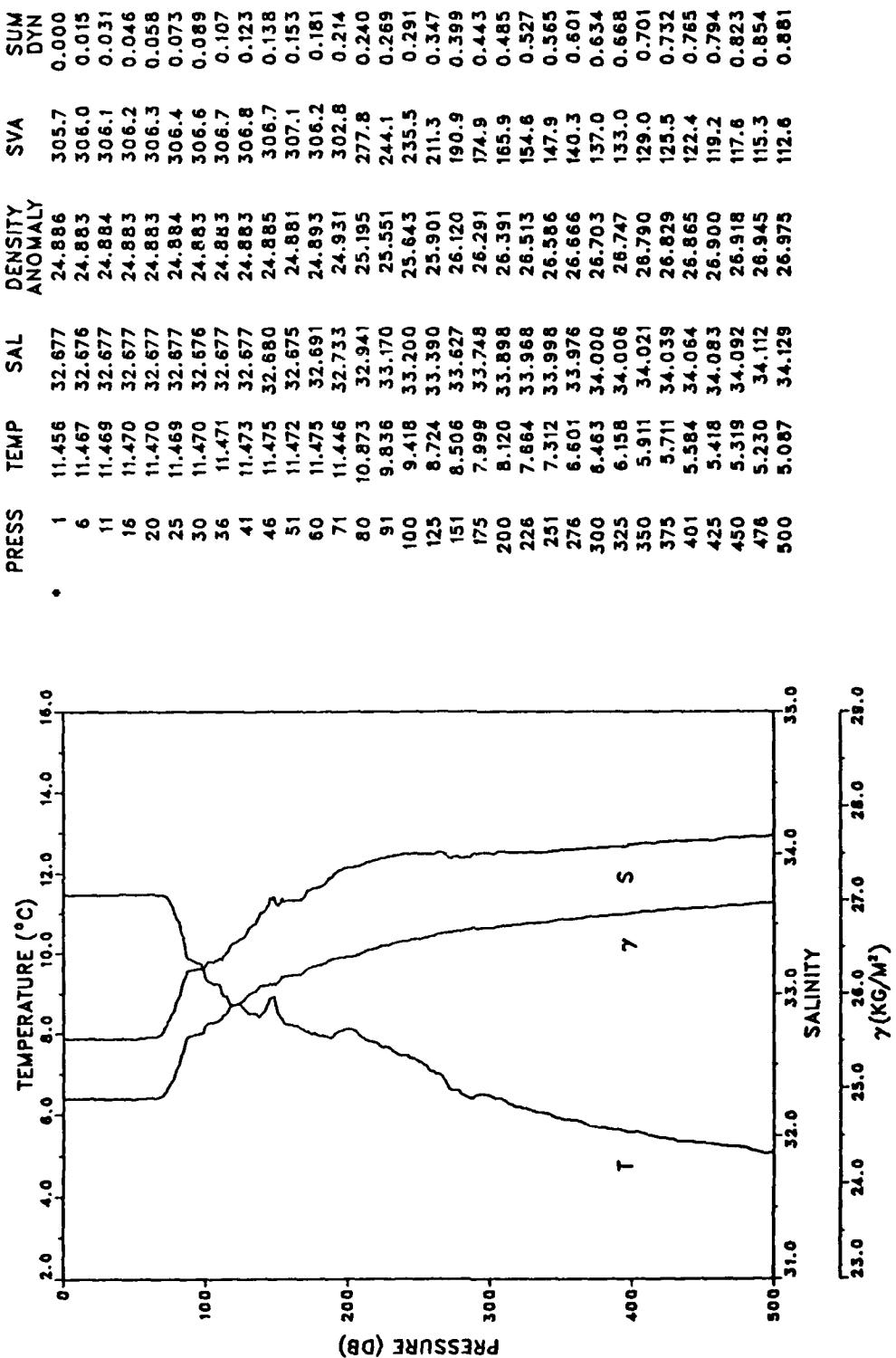


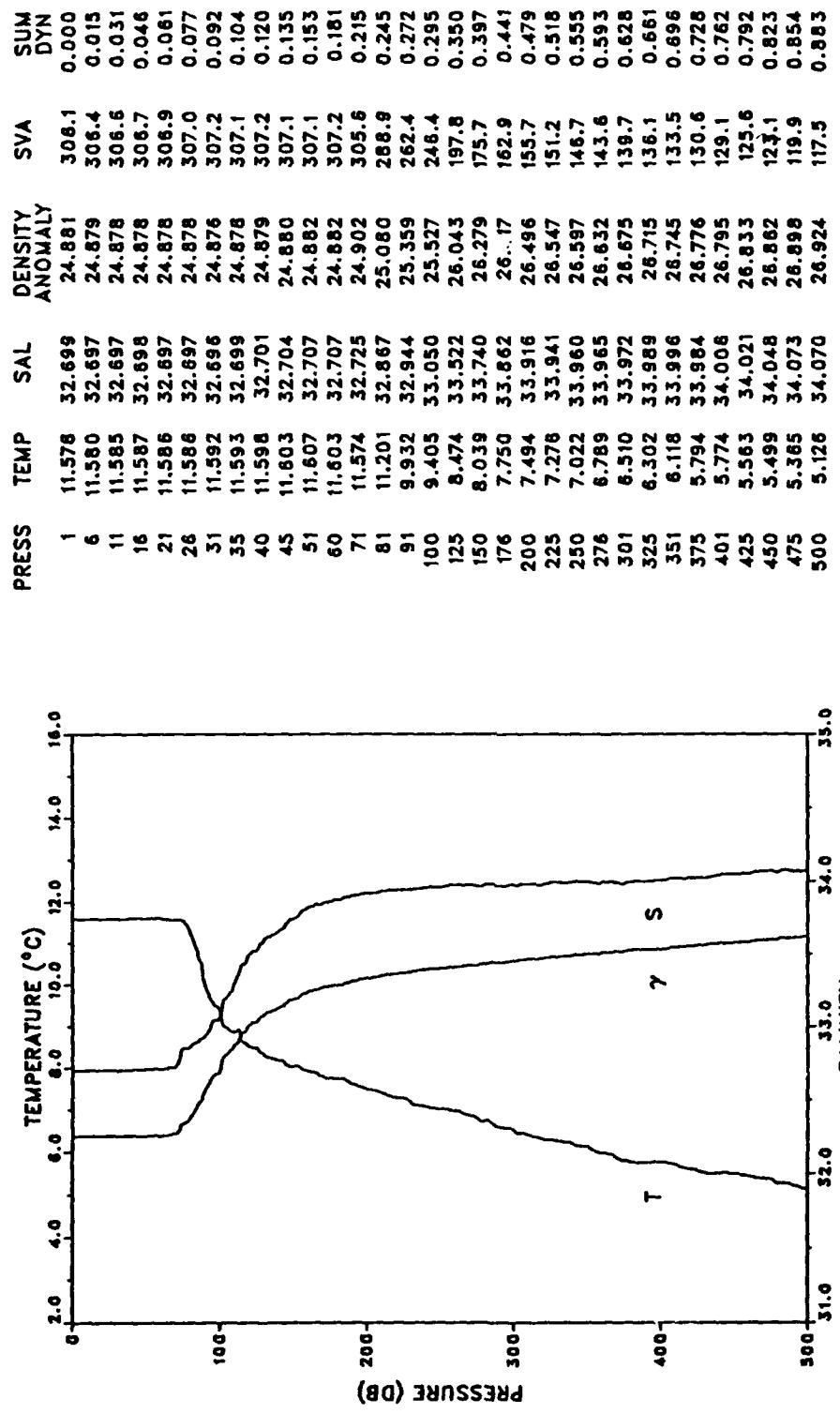
STATION: 772 LAT: 40 22.4 N LON: 124 53.8 W
DATE: 3/24/87 TIME: 0936Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.358	32.858	24.889	305.4	0.000
5	11.358	32.858	24.889	305.5	0.012
11	11.359	32.658	24.889	305.6	0.031
15	11.357	32.656	24.887	305.8	0.043
20	11.356	32.657	24.888	305.8	0.058
26	11.358	32.657	24.888	306.0	0.076
31	11.362	32.658	24.888	306.1	0.092
36	11.352	32.661	24.892	305.8	0.107
40	11.298	32.678	24.916	305.8	0.119
46	10.976	32.776	25.049	291.1	0.137
51	10.705	32.869	25.169	279.7	0.151
61	10.431	32.950	25.279	269.4	0.179
71	10.074	33.104	25.460	252.4	0.205
80	9.940	33.188	25.548	244.2	0.227
91	9.564	33.347	25.734	226.7	0.253
100	9.446	33.404	25.798	220.8	0.273
126	8.930	33.624	26.052	197.0	0.328
151	8.316	33.840	26.316	172.3	0.374
175	8.114	33.902	26.395	165.1	0.414
201	7.681	33.942	26.490	156.4	0.456
225	7.427	33.974	26.551	150.8	0.493
250	7.175	33.997	26.605	146.0	0.530
276	7.085	34.005	26.623	144.6	0.568
300	6.960	34.011	26.645	142.8	0.602
325	6.898	34.039	26.703	137.6	0.637
350	6.413	34.062	26.759	132.4	0.671
376	6.143	34.095	26.820	126.8	0.703
401	5.946	34.116	26.861	123.0	0.736
426	5.791	34.122	26.885	121.0	0.766
450	5.685	34.134	26.908	119.0	0.795
476	5.588	34.147	26.930	117.1	0.826
500	5.473	34.158	26.952	115.2	0.854

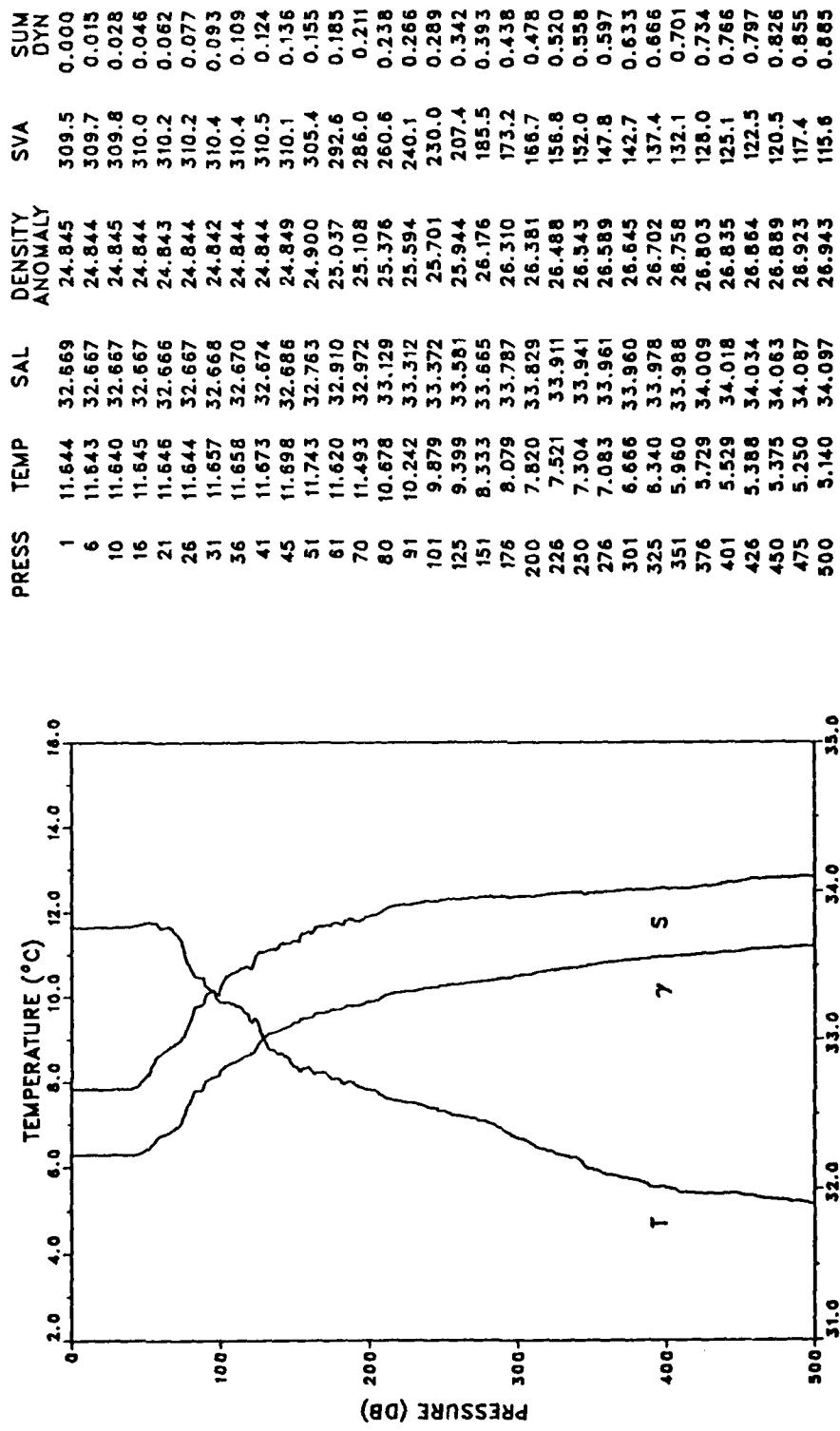


STATION: 78 LAT: 40 22.4 N LON: 125 3.7 W
DATE: 3/24/87 TIME: 1048Z



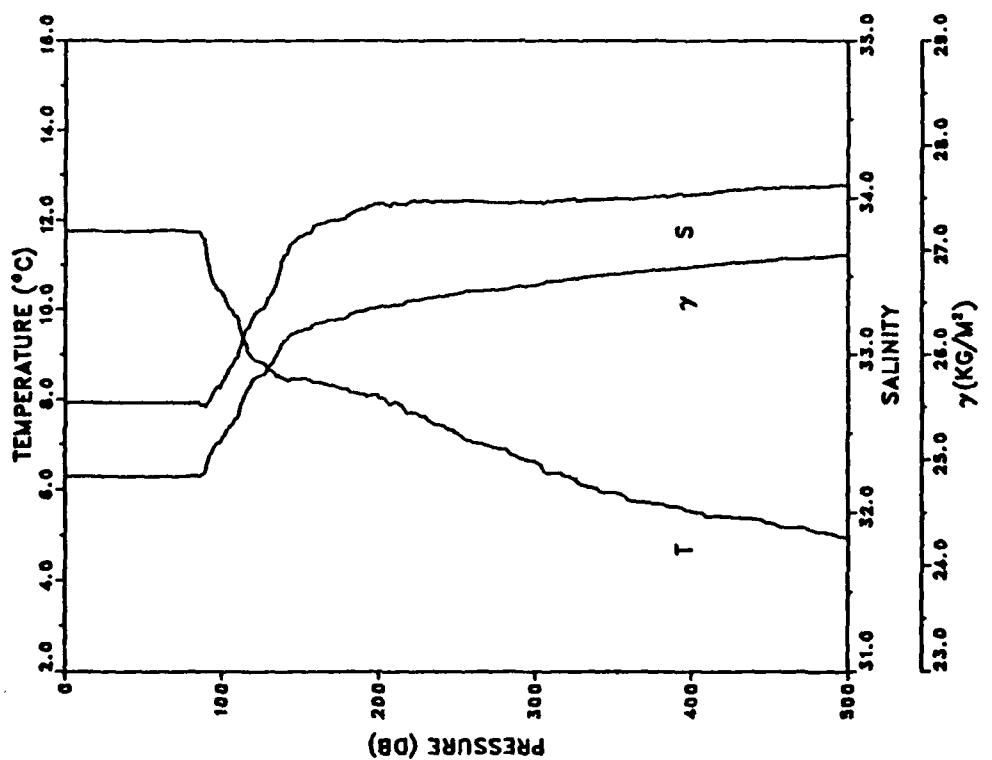


STATION: 782 LAT: 40 23.0 N LON: 125 20.8 W
DATE: 3/24/87 TIME: 1323Z



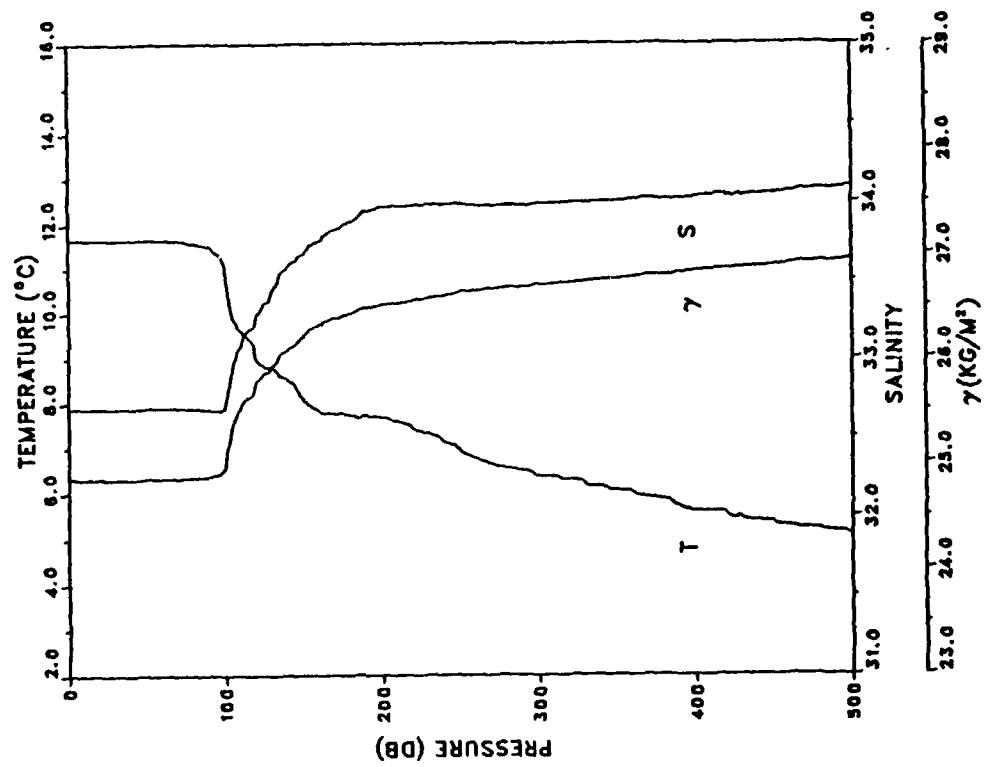
STATION: 79 LAT: 40 23.0 N LON: 125 28.9 W
DATE: 3/24/87 TIME: 1430Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.757	32.694	24.844	309.6	0.000
6	11.760	32.693	24.843	309.9	0.015
11	11.761	32.694	24.843	309.9	0.031
15	11.759	32.694	24.844	310.0	0.043
20	11.761	32.694	24.843	310.1	0.059
26	11.761	32.694	24.843	310.2	0.077
30	11.762	32.693	24.842	310.4	0.090
36	11.762	32.693	24.842	310.5	0.109
40	11.761	32.693	24.843	310.6	0.121
45	11.763	32.693	24.842	310.8	0.136
50	11.763	32.693	24.842	310.9	0.152
61	11.767	32.693	24.842	311.2	0.186
70	11.766	32.693	24.842	311.3	0.214
81	11.737	32.692	24.846	311.1	0.248
91	11.091	32.682	24.955	300.9	0.279
100	10.379	32.811	25.180	279.6	0.305
126	8.826	33.292	25.808	220.1	0.370
151	8.458	33.755	26.228	180.7	0.420
176	8.246	33.865	26.346	169.8	0.464
201	8.020	33.963	26.457	159.7	0.505
225	7.884	33.979	26.521	153.8	0.543
251	7.231	33.975	26.580	149.5	0.582
276	6.913	33.967	26.617	145.1	0.619
300	6.624	33.974	26.661	141.1	0.653
325	6.247	33.992	26.725	135.2	0.688
350	5.932	33.994	26.766	131.3	0.721
376	5.700	34.007	26.805	127.8	0.755
400	5.516	34.018	26.836	125.0	0.785
426	5.393	34.049	26.876	121.5	0.817
450	5.267	34.061	26.900	119.3	0.846
475	5.123	34.068	26.922	117.3	0.876
500	4.933	34.080	26.954	114.4	0.905

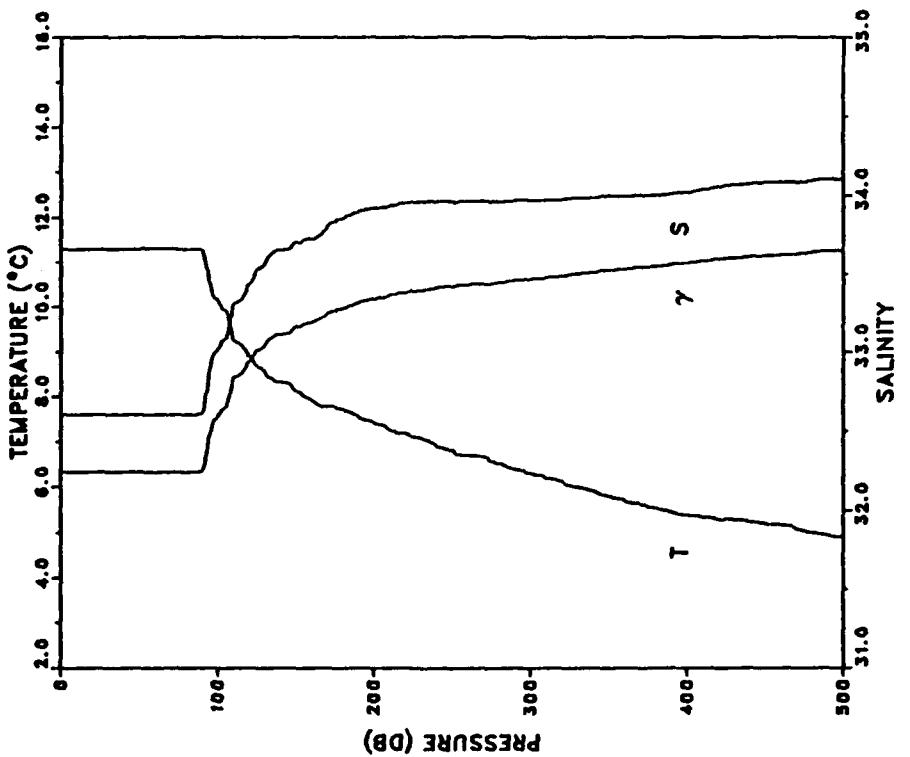


STATION: 80 LAT: 40 22.8 N LON: 125 39.9 W
DATE: 3/24/87 TIME: 1553Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.645	32.681	24.855	308.6	0.000
5	11.647	32.680	24.853	308.8	0.012
10	11.646	32.680	24.854	308.9	0.028
15	11.647	32.679	24.853	309.1	0.043
20	11.645	32.680	24.854	309.1	0.059
25	11.647	32.680	24.853	309.3	0.074
31	11.646	32.679	24.853	309.4	0.093
35	11.647	32.680	24.853	309.5	0.105
41	11.648	32.680	24.853	309.6	0.124
46	11.648	32.679	24.852	309.8	0.139
51	11.653	32.682	24.854	309.8	0.155
60	11.650	32.685	24.857	309.7	0.183
71	11.631	32.685	24.860	309.6	0.217
80	11.578	32.680	24.866	309.2	0.244
90	11.493	32.672	24.875	308.5	0.275
100	11.050	32.685	24.965	300.2	0.306
125	8.818	33.358	25.861	215.0	0.370
150	8.090	33.666	26.213	181.9	0.420
176	7.756	33.854	26.410	163.6	0.465
201	7.675	33.970	26.513	154.2	0.504
225	7.361	33.978	26.564	149.6	0.541
251	6.891	33.986	26.635	143.0	0.579
276	6.568	33.972	26.667	140.1	0.614
301	6.376	33.986	26.703	136.9	0.649
326	6.257	33.993	26.724	135.2	0.683
351	6.051	34.001	26.757	132.3	0.716
376	5.865	34.013	26.790	129.4	0.749
401	5.601	34.029	26.835	125.2	0.781
425	5.431	34.032	26.858	123.2	0.811
450	5.345	34.046	26.879	121.4	0.841
475	5.209	34.074	26.917	117.9	0.871
500	5.090	34.092	26.945	115.4	0.900

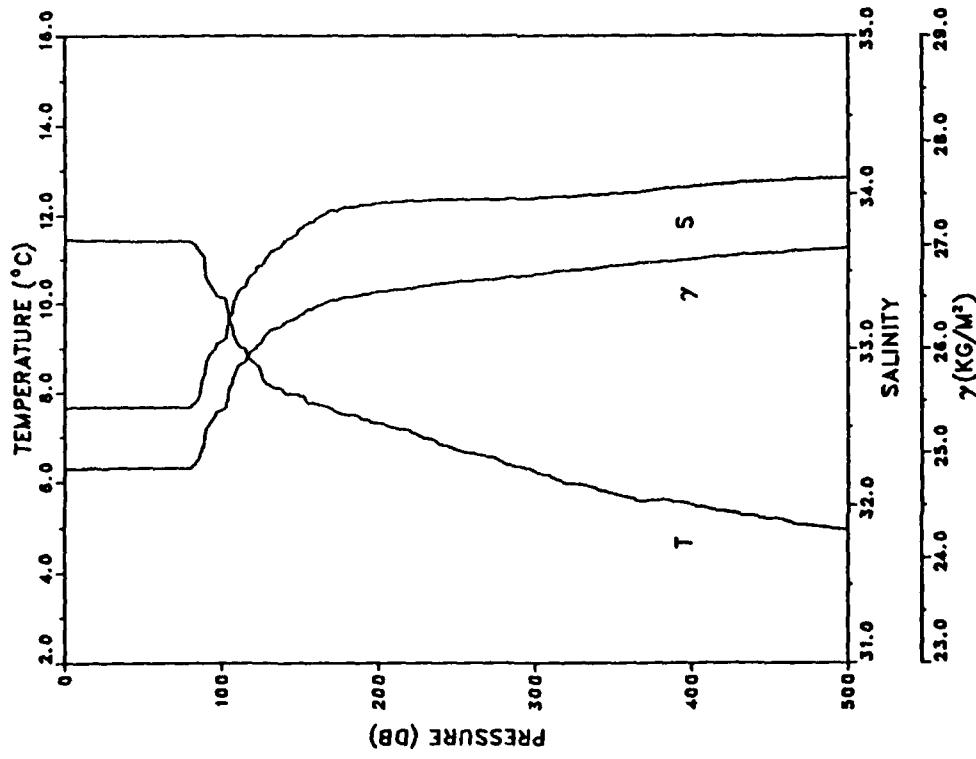


PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.301	32.600	24.854	308.7	0.000
5	11.301	32.600	24.854	308.8	0.012
10	11.301	32.600	24.854	308.9	0.028
15	11.301	32.600	24.854	308.0	0.043
20	11.301	32.600	24.854	309.1	0.059
25	11.301	32.600	24.854	309.2	0.074
30	11.301	32.600	24.854	309.3	0.090
35	11.301	32.600	24.854	309.4	0.105
40	11.301	32.600	24.854	309.5	0.121
45	11.301	32.600	24.854	309.6	0.136
50	11.301	32.600	24.854	309.7	0.152
61	11.303	32.600	24.854	310.0	0.186
71	11.302	32.600	24.854	310.2	0.217
81	11.297	32.602	24.856	310.1	0.248
91	11.250	32.618	24.877	308.3	0.279
100	10.138	33.012	25.377	260.8	0.304
125	8.686	33.524	26.012	200.7	0.362
151	8.104	33.699	26.237	179.7	0.411
175	7.787	33.829	26.389	165.6	0.453
200	7.434	33.917	26.505	154.8	0.493
225	7.116	33.954	26.579	148.1	0.531
250	6.814	33.959	26.624	144.0	0.567
276	6.568	33.958	26.656	141.2	0.604
301	6.294	33.969	26.701	137.2	0.639
325	6.034	33.979	26.742	133.4	0.671
350	5.803	33.996	26.784	129.6	0.704
375	5.567	33.999	26.815	126.7	0.736
401	5.386	34.019	26.853	123.3	0.769
426	5.300	34.063	26.898	119.3	0.799
450	5.195	34.080	26.923	117.0	0.828
476	5.038	34.084	26.945	115.1	0.858
500	4.911	34.099	26.971	112.7	0.885



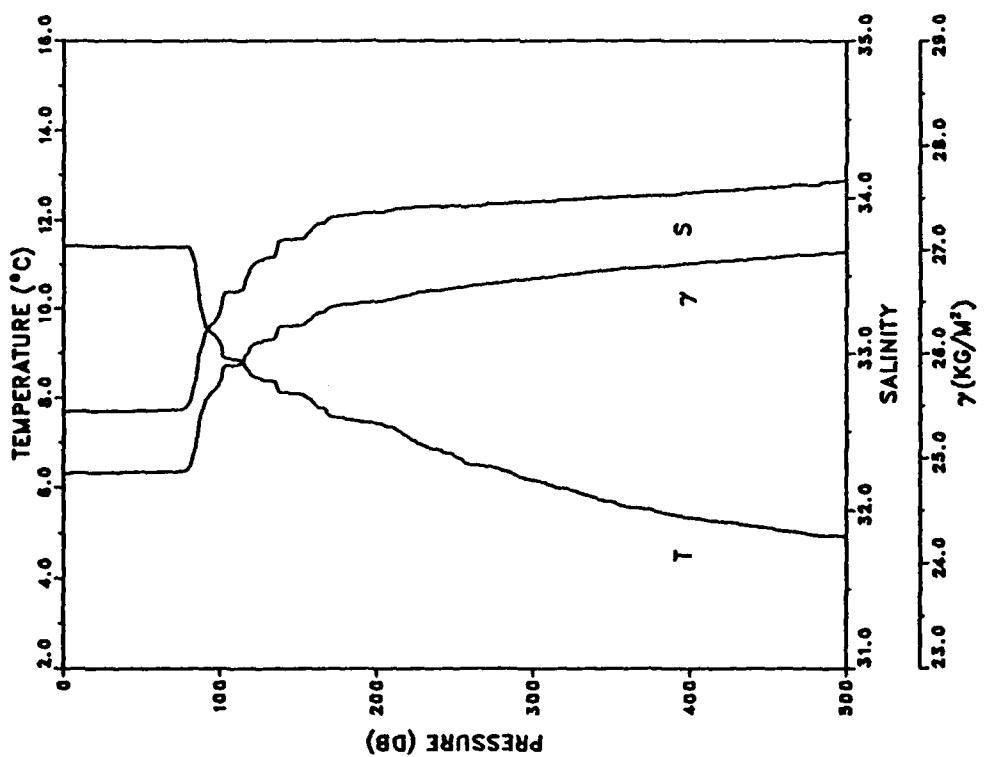
STATION: 82 LAT: 40 23.0 N LON: 125 59.4 W
DATE: 3/24/87 TIME: 1830Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
•	•	•	•	•	•
1	11.443	32.618	24.842	309.8	0.000
5	11.438	32.620	24.845	309.6	0.012
11	11.438	32.621	24.846	309.7	0.031
16	11.435	32.621	24.846	309.8	0.046
20	11.436	32.621	24.846	309.9	0.059
26	11.436	32.620	24.845	310.1	0.077
31	11.424	32.620	24.847	310.0	0.093
35	11.419	32.620	24.848	309.9	0.105
41	11.415	32.619	24.848	310.1	0.124
46	11.416	32.619	24.848	310.2	0.139
50	11.413	32.619	24.849	310.2	0.152
61	11.410	32.619	24.849	310.4	0.186
70	11.411	32.620	24.850	310.5	0.214
80	11.401	32.622	24.853	310.4	0.245
91	10.563	32.918	25.231	274.6	0.277
101	10.127	33.049	25.408	257.9	0.304
126	8.398	33.527	26.058	196.3	0.361
151	7.930	33.774	26.322	171.6	0.407
175	7.544	33.900	26.476	157.2	0.446
201	7.304	33.936	26.539	151.6	0.486
226	7.016	33.949	26.589	147.1	0.523
250	6.702	33.957	26.638	142.7	0.558
276	6.503	33.960	26.666	140.2	0.595
301	6.220	33.970	26.711	136.1	0.630
325	5.963	33.981	26.752	132.4	0.662
350	5.749	33.997	26.791	128.8	0.694
375	5.592	34.019	26.828	125.5	0.726
401	5.486	34.042	26.859	122.8	0.759
426	5.339	34.065	26.895	119.6	0.789
450	5.205	34.078	26.921	117.3	0.817
475	5.048	34.090	26.948	114.8	0.846
500	4.953	34.097	26.965	113.4	0.873



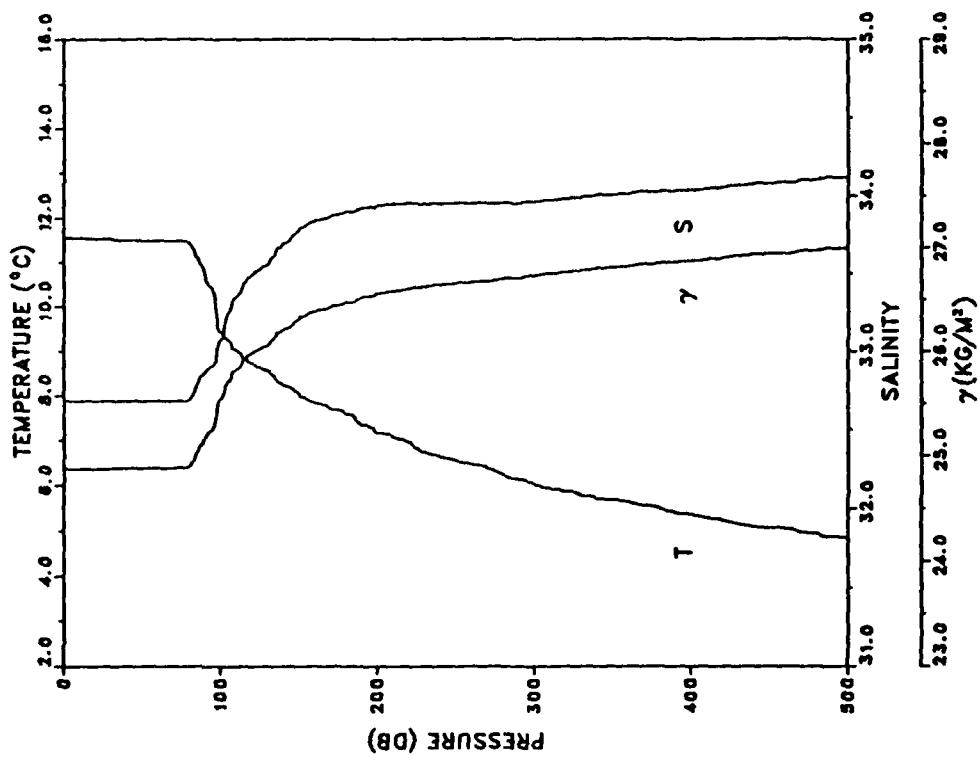
STATION: 83 LAT: 40 23.5 N LON: 126 8.6 W
DATE: 3/24/87 TIME: 1941Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.437	32.630	24.853	308.8	0.000
6	11.422	32.631	24.856	308.6	0.015
11	11.420	32.629	24.855	308.5	0.031
15	11.414	32.632	24.859	308.6	0.043
20	11.415	32.630	24.857	308.8	0.059
26	11.411	32.631	24.858	308.8	0.077
31	11.410	32.631	24.858	308.9	0.093
35	11.403	32.631	24.860	308.9	0.105
40	11.392	32.632	24.862	308.7	0.120
46	11.392	32.633	24.863	308.7	0.139
50	11.392	32.633	24.863	308.8	0.151
60	11.393	32.634	24.834	309.0	0.182
71	11.393	32.638	24.867	308.9	0.216
81	11.360	32.696	24.918	304.3	0.247
91	9.615	33.129	25.555	243.6	0.274
100	9.227	33.264	25.723	227.8	0.295
126	8.428	33.599	26.110	191.4	0.350
151	8.090	33.738	26.270	178.6	0.396
176	7.554	33.884	26.462	158.5	0.438
200	7.437	33.908	26.498	155.0	0.475
225	7.014	33.942	26.584	147.6	0.513
251	6.675	33.944	26.631	143.3	0.551
276	6.440	33.964	26.678	139.1	0.586
300	6.164	33.978	26.724	134.8	0.619
325	5.936	33.990	26.763	131.4	0.653
351	5.685	34.003	26.804	127.6	0.688
375	5.510	34.013	26.833	125.0	0.717
401	5.334	34.034	26.871	121.6	0.749
426	5.235	34.048	26.893	119.6	0.779
451	5.112	34.064	26.920	117.2	0.808
475	4.982	34.080	26.948	114.7	0.838
500	4.906	34.110	26.980	111.9	0.865



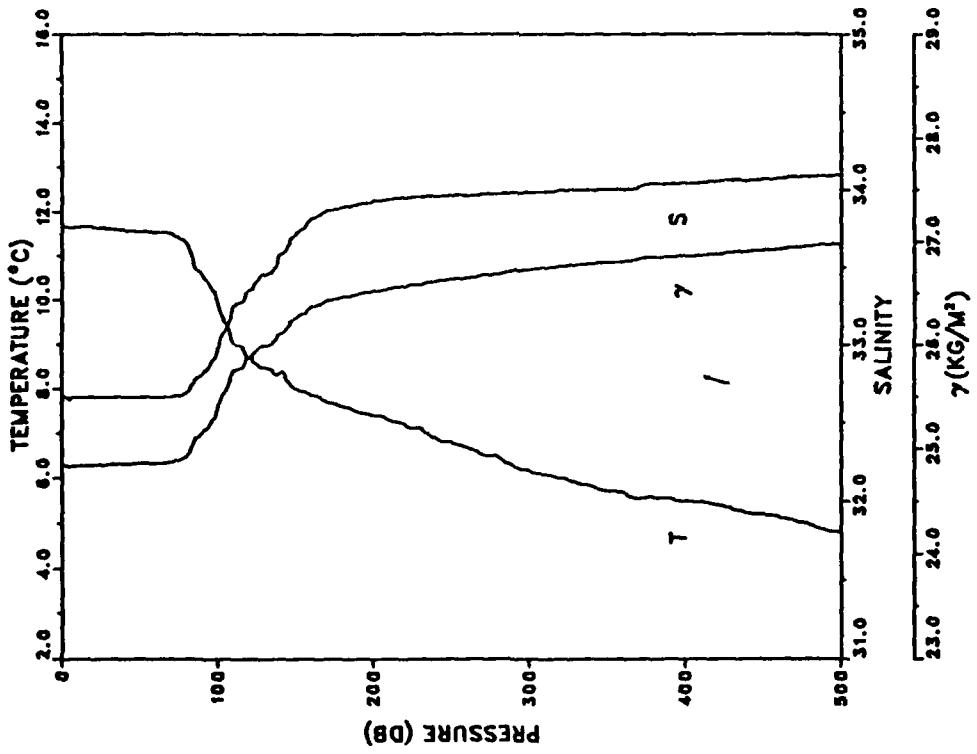
STATION: 84 LAT: 40 15.6 N LON: 126 8.5 W
DATE: 3/24/87 TIME: 2048Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.545	32.679	24.871	307.0	0.000
6	11.547	32.678	24.870	307.3	0.015
10	11.544	32.678	24.871	307.3	0.028
16	11.531	32.678	24.873	307.2	0.046
20	11.528	32.677	24.873	307.3	0.058
26	11.528	32.678	24.874	307.4	0.077
30	11.528	32.678	24.874	307.4	0.089
35	11.505	32.677	24.877	307.2	0.104
40	11.503	32.678	24.878	307.2	0.120
46	11.490	32.677	24.880	307.2	0.138
51	11.485	32.677	24.881	307.2	0.154
60	11.482	32.678	24.882	307.3	0.181
70	11.480	32.678	24.882	307.4	0.212
80	11.446	32.686	24.895	306.5	0.243
91	10.800	32.868	25.186	278.9	0.275
100	9.429	33.073	25.542	245.1	0.298
125	8.834	33.528	26.023	199.7	0.354
150	8.030	33.775	26.308	172.9	0.401
175	7.674	33.878	26.440	180.6	0.442
200	7.178	33.938	26.558	149.7	0.481
225	6.825	33.949	26.615	144.5	0.518
251	6.538	33.950	26.654	141.1	0.555
276	6.301	33.947	26.682	138.6	0.590
300	6.024	33.959	26.727	134.5	0.623
325	5.860	33.982	26.766	131.0	0.656
350	5.687	34.004	26.805	127.5	0.688
376	5.542	34.023	26.837	124.6	0.721
401	5.348	34.034	26.869	121.7	0.752
426	5.185	34.060	26.909	118.1	0.782
451	5.061	34.078	26.937	115.8	0.811
476	4.948	34.098	26.966	113.0	0.840
500	4.832	34.117	26.994	110.5	0.866

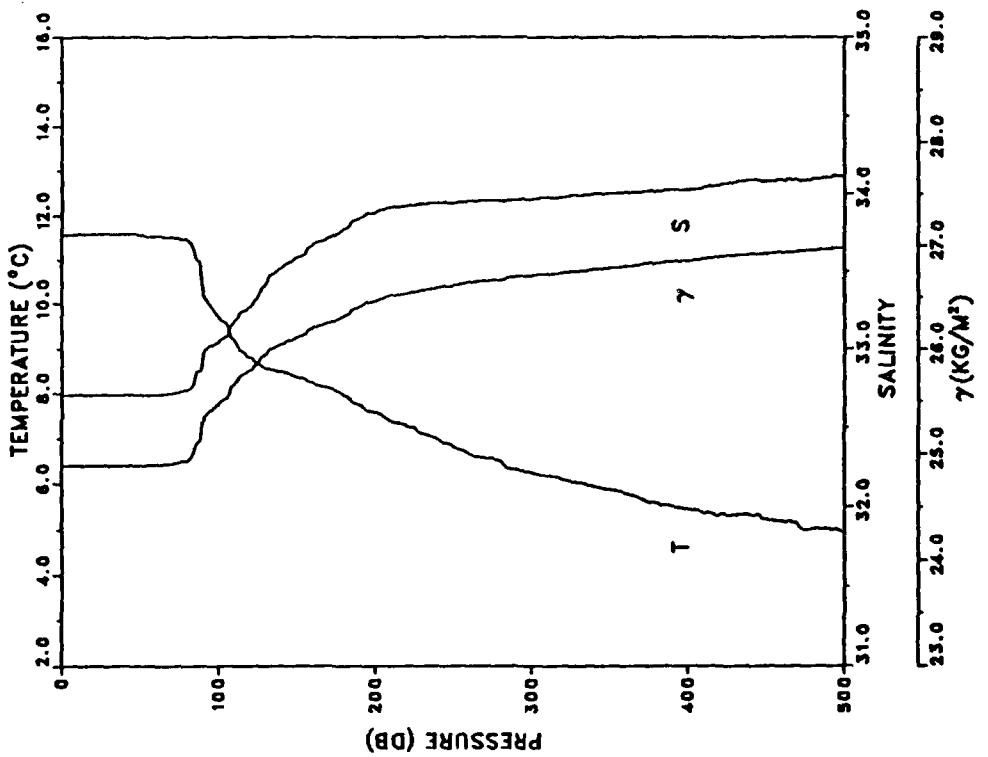


STATION: 85 LAT: 40 8.4 N LON: 126 8.6 W
DATE: 3/24/87 TIME: 2206Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.880	32.658	24.834	310.6	0.000
5	11.860	32.640	24.820	312.0	0.012
11	11.860	32.658	24.834	310.8	0.031
16	11.862	32.658	24.834	311.0	0.047
20	11.840	32.657	24.837	310.7	0.059
26	11.850	32.658	24.836	311.0	0.078
31	11.811	32.659	24.844	310.3	0.093
35	11.594	32.660	24.848	310.0	0.106
41	11.569	32.660	24.852	309.7	0.124
46	11.560	32.660	24.854	309.7	0.140
50	11.547	32.680	24.856	309.5	0.152
60	11.534	32.660	24.859	309.5	0.183
70	11.493	32.662	24.868	308.9	0.214
81	11.217	32.699	24.946	301.6	0.248
91	10.517	32.818	25.161	281.2	0.277
101	9.736	33.004	25.434	255.3	0.304
126	8.325	33.418	25.953	206.3	0.361
150	8.002	33.713	26.263	177.1	0.407
176	7.662	33.873	26.438	160.9	0.451
200	7.401	33.927	26.518	153.6	0.489
226	7.124	33.952	26.576	148.3	0.528
250	6.789	33.959	26.626	143.7	0.563
276	6.505	33.974	26.677	139.2	0.600
301	6.161	33.982	26.728	134.5	0.634
325	5.958	33.998	26.766	131.0	0.666
350	5.721	34.003	26.800	128.0	0.698
376	5.569	34.034	26.843	124.1	0.731
401	5.502	34.042	26.857	123.0	0.762
426	5.361	34.062	26.890	120.1	0.793
451	5.195	34.066	26.912	118.1	0.822
476	5.017	34.085	26.948	114.8	0.851
500	4.819	34.095	26.978	112.0	0.879

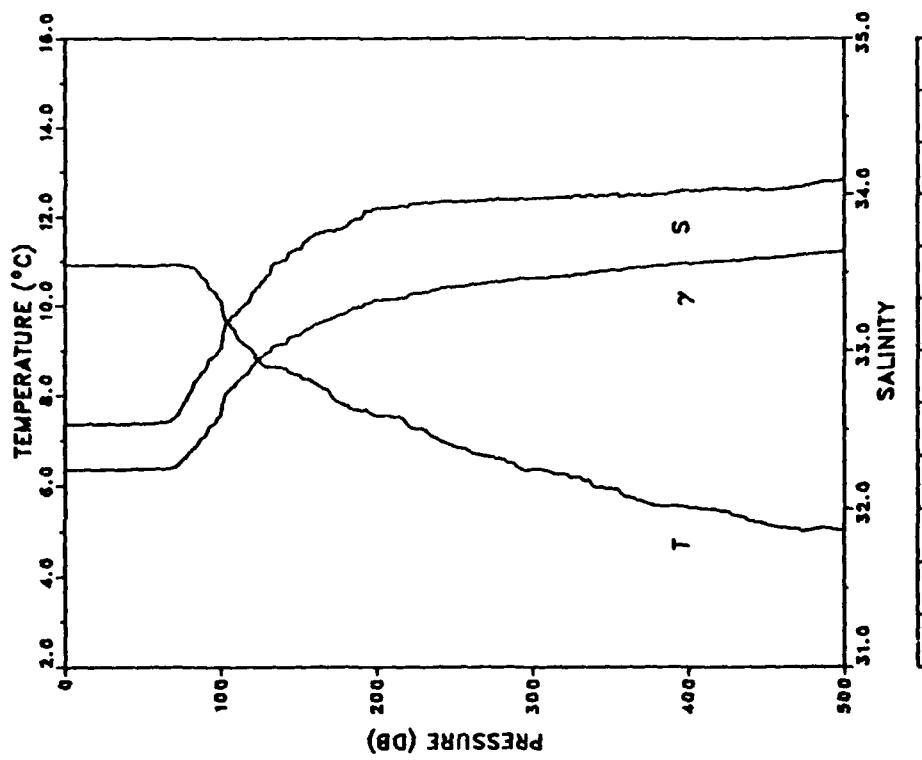


PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.570	32.706	24.888	305.5	0.000
6	11.566	32.705	24.888	305.6	0.013
10	11.574	32.705	24.886	305.8	0.028
16	11.576	32.705	24.886	306.0	0.046
20	11.577	32.705	24.886	306.1	0.058
26	11.581	32.705	24.885	306.3	0.076
31	11.579	32.705	24.885	306.4	0.092
35	11.580	32.704	24.884	306.5	0.104
41	11.579	32.704	24.885	306.6	0.122
46	11.578	32.705	24.885	306.7	0.138
50	11.557	32.704	24.889	306.4	0.150
61	11.529	32.706	24.895	306.0	0.184
71	11.512	32.713	24.904	305.4	0.214
80	11.450	32.737	24.934	302.8	0.242
91	10.179	32.973	25.340	264.2	0.273
100	9.712	33.041	25.471	251.9	0.296
125	8.659	33.325	25.360	215.1	0.354
151	8.344	33.590	26.116	191.2	0.407
175	8.051	33.733	26.272	176.8	0.451
200	7.587	33.880	26.455	159.7	0.493
226	7.218	33.923	26.540	151.8	0.534
251	6.803	33.941	26.612	145.2	0.571
276	6.539	33.954	26.657	141.1	0.607
301	6.230	33.968	26.708	136.4	0.642
326	6.049	33.986	26.745	133.1	0.675
351	5.887	34.004	26.782	129.8	0.708
375	5.601	34.016	26.825	125.9	0.739
401	5.438	34.026	26.852	123.4	0.771
426	5.297	34.064	26.899	119.2	0.802
450	5.229	34.082	26.921	117.3	0.830
475	4.998	34.084	26.950	114.6	0.859
500	4.940	34.112	26.978	112.1	0.887

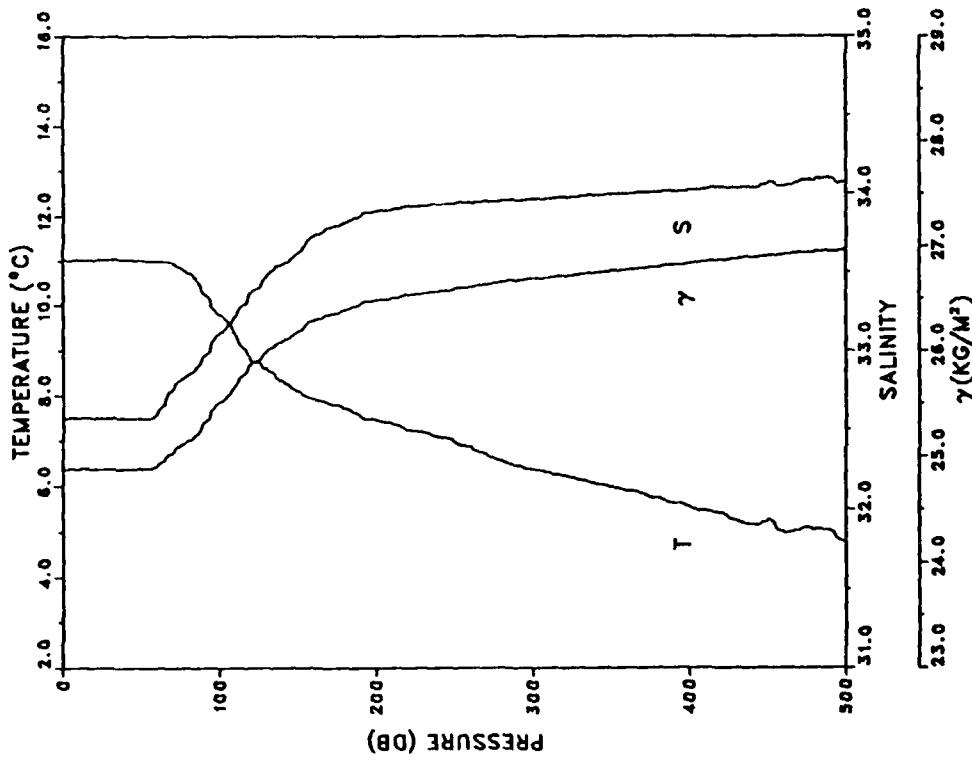


STATION: 87 LAT: 40 38.5 N LON: 126 9.7 W
DATE: 3/25/87 TIME: 0253Z

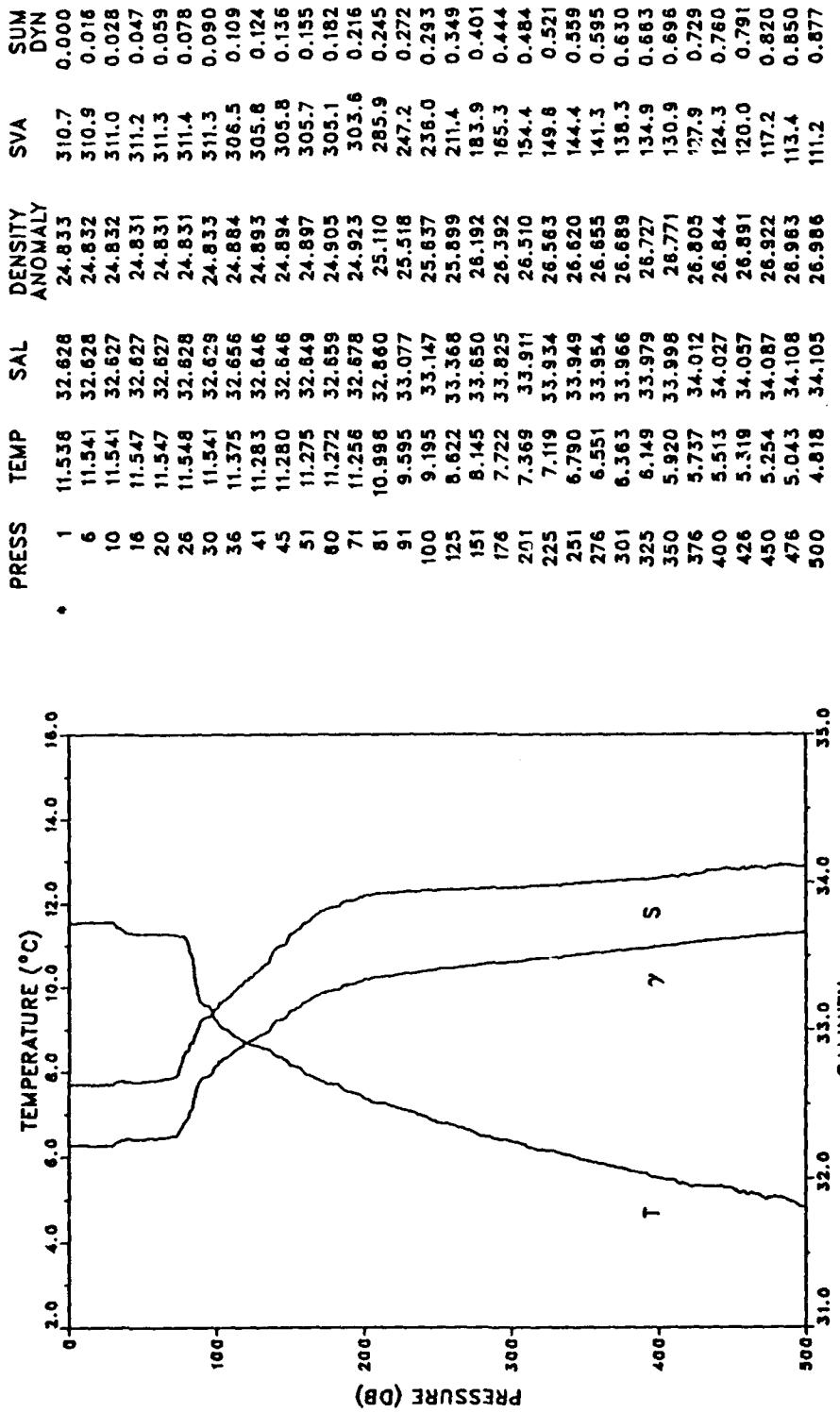
PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	10.913	32.532	24.870	307.2	0.000
5	10.912	32.533	24.871	307.2	0.012
10	10.920	32.534	24.870	307.3	0.028
15	10.920	32.534	24.870	307.4	0.043
20	10.921	32.534	24.870	307.5	0.058
25	10.920	32.534	24.870	307.6	0.077
31	10.920	32.534	24.870	307.7	0.092
36	10.920	32.533	24.869	307.9	0.108
41	10.918	32.534	24.871	307.9	0.123
45	10.897	32.537	24.877	307.4	0.135
50	10.900	32.538	24.877	307.5	0.151
60	10.903	32.543	24.880	307.4	0.181
71	10.927	32.579	24.904	305.3	0.215
80	10.976	32.730	25.031	293.5	0.242
91	10.549	32.883	25.207	276.9	0.273
100	10.106	33.017	25.386	259.9	0.298
125	8.752	33.413	25.515	210.0	0.356
151	8.435	33.650	26.149	188.1	0.408
176	7.849	33.777	26.336	170.6	0.453
200	7.547	33.909	26.483	157.0	0.492
226	7.257	33.940	26.548	151.0	0.532
250	6.864	33.952	26.612	145.2	0.568
276	6.614	33.962	26.653	141.5	0.605
301	6.360	33.972	26.695	137.8	0.640
325	6.198	33.985	26.726	135.0	0.673
350	5.944	33.999	26.769	131.1	0.706
375	5.598	33.990	26.804	127.8	0.738
401	5.532	34.021	26.837	125.0	0.771
425	5.433	34.036	26.861	122.9	0.801
450	5.153	34.029	26.888	120.3	0.831
475	5.023	34.057	26.925	116.9	0.861
500	5.023	34.090	26.951	114.7	0.890



PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.022	32.573	24.883	306.0	0.000
5	11.026	32.574	24.883	306.0	0.012
10	11.028	32.573	24.882	306.3	0.028
15	11.023	32.573	24.882	306.3	0.043
20	11.022	32.573	24.883	306.4	0.058
25	11.030	32.573	24.881	306.6	0.073
31	11.029	32.573	24.881	306.7	0.092
35	11.029	32.573	24.881	306.8	0.104
40	11.030	32.573	24.881	306.9	0.120
45	11.020	32.571	24.881	307.0	0.135
51	11.000	32.572	24.886	306.7	0.153
60	10.997	32.596	24.905	305.0	0.181
70	10.964	32.749	25.030	293.4	0.211
80	10.733	32.851	25.150	282.1	0.239
91	10.241	32.975	25.331	265.1	0.270
100	9.776	33.111	25.515	247.7	0.293
126	8.715	33.407	25.916	209.9	0.352
150	8.086	33.622	26.179	185.1	0.400
176	7.792	33.797	26.360	168.3	0.445
200	7.454	33.887	26.479	157.3	0.485
225	7.218	33.922	26.540	151.8	0.523
251	6.948	33.939	26.590	147.3	0.562
276	6.607	33.950	26.645	142.3	0.598
301	6.369	33.984	26.687	138.5	0.633
325	6.199	33.977	26.719	135.7	0.666
351	5.980	33.995	26.761	131.9	0.701
376	5.756	34.010	26.801	128.2	0.734
400	5.551	34.017	26.831	125.5	0.764
426	5.291	34.033	26.875	121.4	0.796
450	5.249	34.069	26.908	118.5	0.825
476	5.097	34.086	26.940	115.7	0.855
500	4.769	34.074	26.967	112.9	0.883

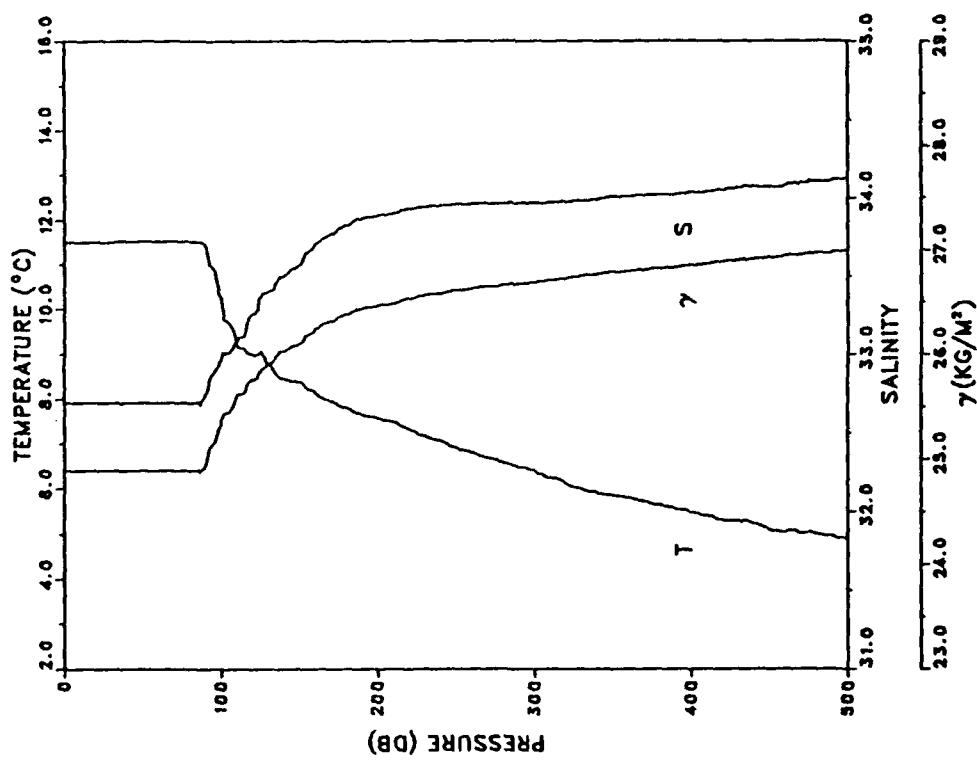


STATION: 89 LAT: 40 45.4 N LON: 125 59.7 W
DATE: 3/25/87 TIME: 0541Z



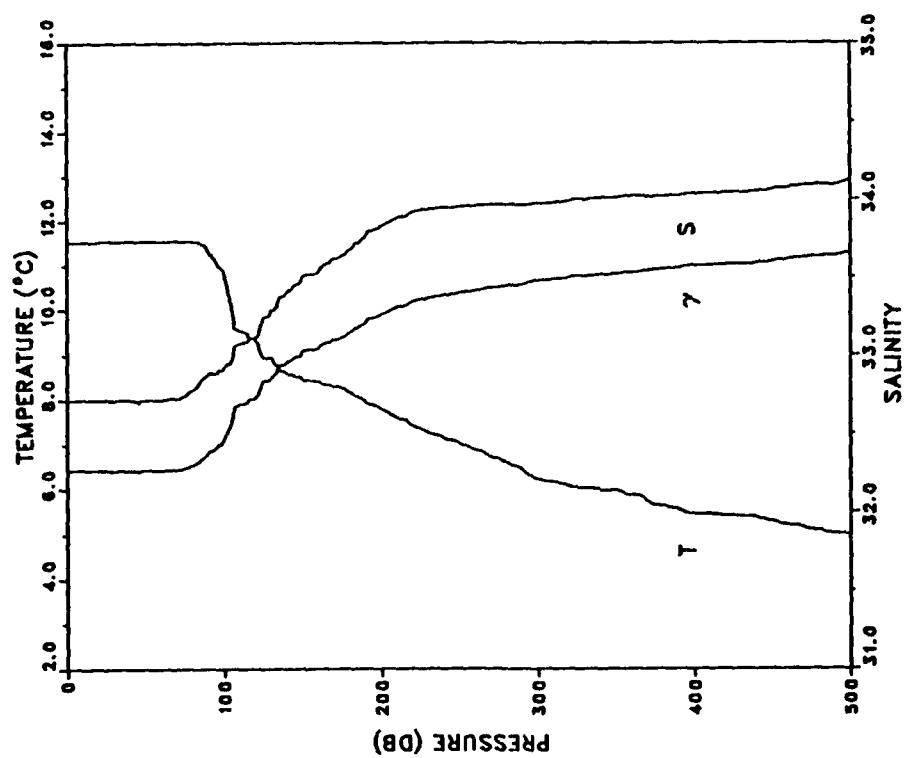
STATION: 90 LAT: 40 45.6 N LON: 125 48.3 W
DATE: 3/25/87 TIME: 0712

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.497	32.689	24.038	305.5	0.000
5	11.503	32.689	24.887	305.7	0.012
10	11.505	32.688	24.886	305.9	0.028
16	11.505	32.687	24.885	306.1	0.046
20	11.506	32.688	24.885	306.1	0.058
25	11.506	32.687	24.885	306.3	0.073
31	11.507	32.688	24.885	306.4	0.092
35	11.508	32.688	24.885	306.5	0.104
41	11.509	32.687	24.884	306.7	0.122
46	11.509	32.688	24.885	306.7	0.138
50	11.510	32.687	24.884	306.9	0.150
60	11.511	32.688	24.884	307.0	0.181
71	11.510	32.689	24.885	307.2	0.215
81	11.509	32.690	24.886	307.3	0.245
91	11.381	32.752	24.958	300.7	0.276
100	10.261	32.963	25.318	266.4	0.301
126	9.055	33.367	25.831	218.0	0.364
151	8.355	33.578	26.05	192.3	0.415
176	7.852	33.805	26.357	168.6	0.461
201	7.560	33.884	26.462	159.0	0.501
226	7.227	33.934	26.548	151.1	0.540
250	6.904	33.954	26.608	145.6	0.576
276	6.642	33.959	26.647	142.1	0.613
301	6.385	33.963	26.684	138.8	0.648
326	6.032	33.976	26.740	133.6	0.682
350	5.850	34.001	26.782	129.8	0.714
376	5.659	34.019	26.820	126.4	0.747
401	5.473	34.032	26.853	123.4	0.779
426	5.286	34.056	26.894	119.6	0.809
450	5.086	34.063	26.923	117.0	0.837
476	5.042	34.109	26.964	113.3	0.867
500	4.914	34.121	26.988	111.1	0.894

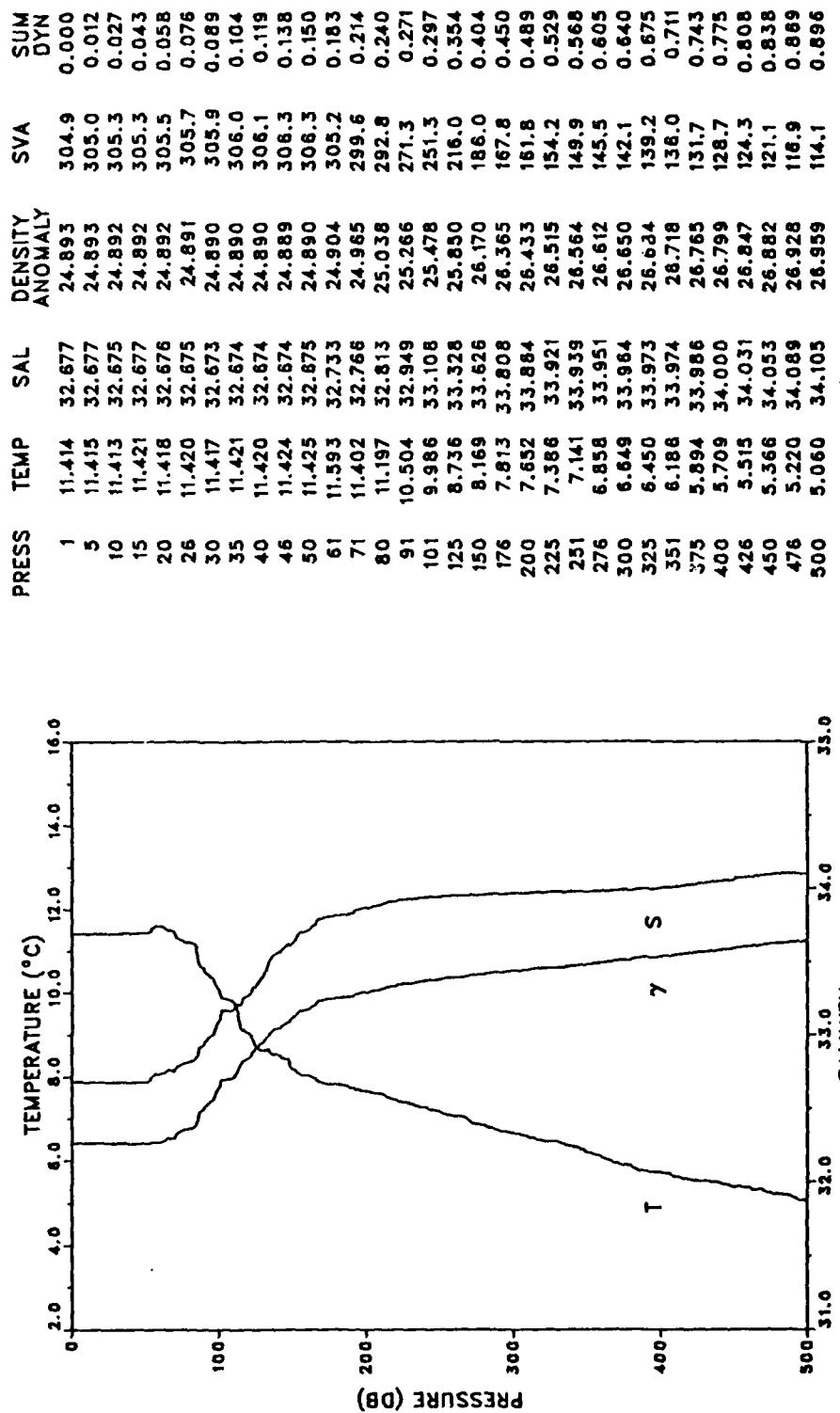


STATION: 91 LAT: 40 45.6 N LON: 125 38.3 W
DATE: 3/25/87 TIME: 0841Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.527	32.714	24.902	304.1	0.000
5	11.527	32.714	24.902	304.2	0.012
10	11.537	32.712	24.898	304.7	0.027
15	11.539	32.712	24.898	304.8	0.043
21	11.541	32.712	24.898	305.0	0.061
26	11.541	32.712	24.898	305.1	0.076
31	11.543	32.712	24.897	305.2	0.091
36	11.547	32.713	24.897	305.3	0.07
40	11.547	32.714	24.898	305.3	0.119
46	11.546	32.695	24.884	306.8	0.137
51	11.549	32.714	24.898	305.6	0.153
60	11.550	32.715	24.898	305.7	0.180
70	11.544	32.723	24.576	305.2	0.211
81	11.536	32.781	24.352	301.0	0.244
91	11.284	32.885	25.082	288.8	0.273
101	10.708	32.928	25.214	276.4	0.302
125	8.921	33.232	25.747	225.9	0.362
151	8.429	33.509	26.039	198.5	0.417
176	8.255	33.640	26.168	186.6	0.465
200	7.773	33.825	26.385	166.4	0.508
226	7.330	33.927	26.528	153.0	0.549
250	7.008	33.950	26.591	147.3	0.585
276	6.857	33.962	26.648	142.1	0.623
300	6.211	33.972	26.714	135.9	0.656
326	6.033	33.998	26.757	132.0	0.691
351	5.957	34.010	26.776	130.5	0.724
376	5.644	34.018	26.821	126.3	0.756
401	5.451	34.033	26.856	123.1	0.787
426	5.402	34.044	26.871	121.9	0.818
450	5.279	34.062	26.899	119.4	0.847
476	5.091	34.092	26.945	115.2	0.877
500	4.992	34.115	26.975	112.5	0.904

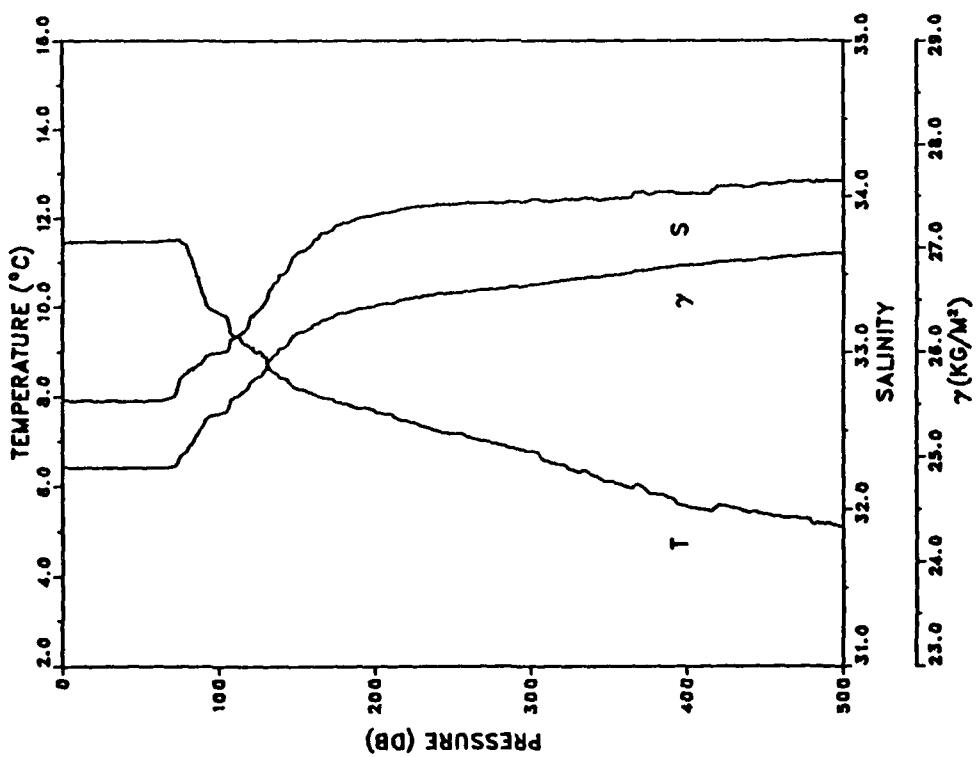


STATION: 92 LAT: 40 45.6 N LON: 125 28.4 W
DATE: 3/25/87 TIME: 1006Z

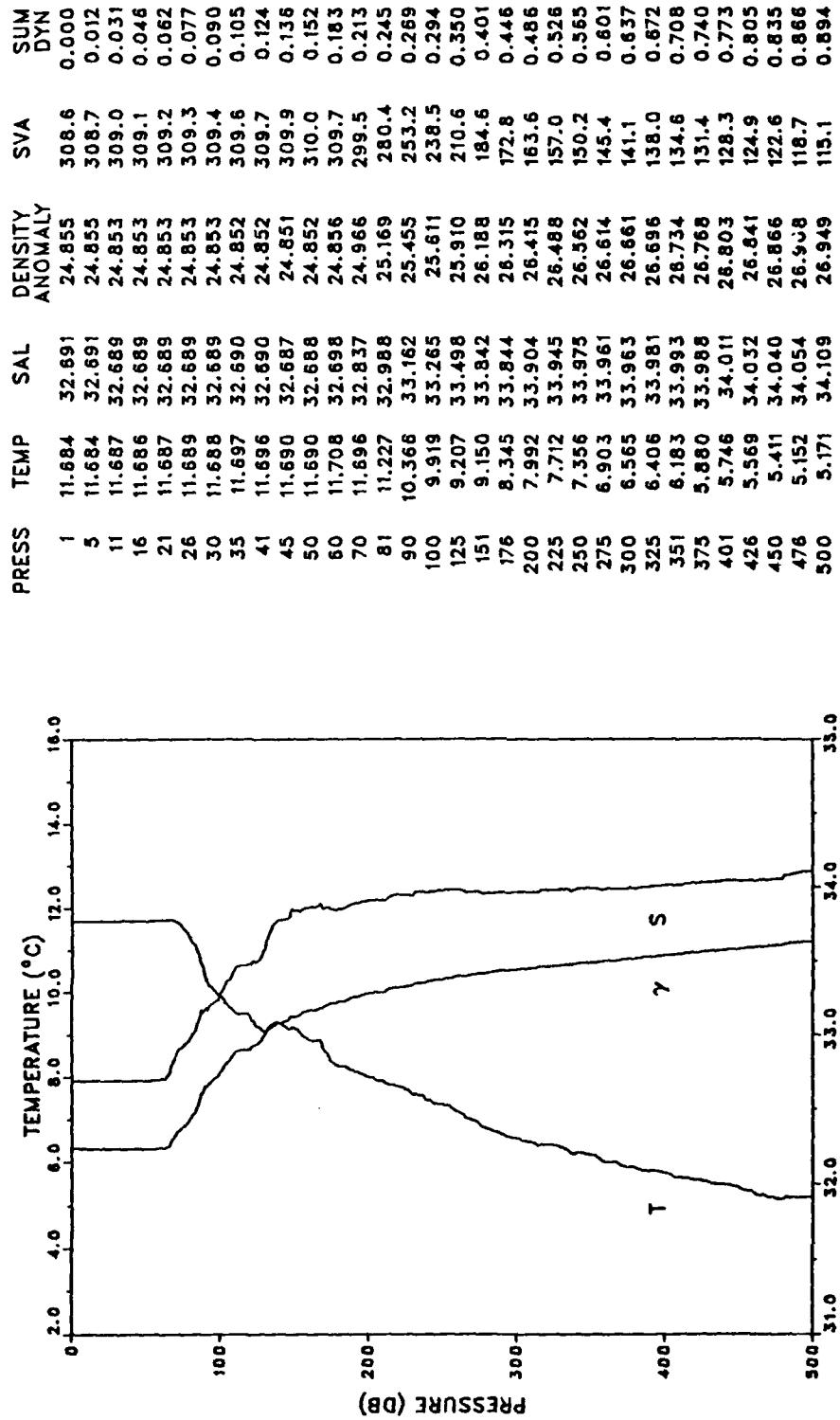


STATION: 93 LAT: 40 38.5 N LON: 125 28.3 W
DATE: 3/25/87 TIME: 1118Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUN DYN
100	11.443	32.691	24.899	304.4	0.000
150	11.455	32.686	24.893	305.1	0.012
200	11.457	32.688	24.894	305.1	0.027
250	11.466	32.689	24.893	305.2	0.043
300	11.456	32.686	24.893	305.4	0.058
350	11.459	32.686	24.892	305.5	0.073
400	11.466	32.687	24.892	305.7	0.092
450	11.462	32.687	24.893	305.8	0.107
500	11.458	32.685	24.892	305.9	0.119
550	11.460	32.686	24.892	306.0	0.137
600	11.462	32.686	24.892	306.1	0.153
650	11.471	32.688	24.892	306.4	0.183
700	11.507	32.714	24.905	305.3	0.214
750	11.188	32.878	25.091	287.8	0.244
800	10.206	32.947	25.315	266.6	0.271
850	9.852	32.997	25.413	257.4	0.298
900	8.992	33.262	25.759	224.8	0.355
950	8.164	33.636	26.179	185.2	0.409
1000	7.870	33.810	26.359	168.5	0.453
1050	7.680	33.878	26.440	161.1	0.492
1100	7.409	33.925	26.515	154.2	0.532
1150	7.177	33.945	26.564	149.9	0.571
1200	6.973	33.954	26.599	146.9	0.609
1250	6.774	33.974	26.641	143.1	0.643
1300	6.382	33.974	26.693	138.2	0.678
1350	6.107	33.979	26.733	134.7	0.713
1400	5.881	34.009	26.785	129.9	0.746
1450	5.548	34.015	26.830	125.6	0.778
1500	5.556	34.062	26.866	122.5	0.810
1550	5.385	34.078	26.898	119.6	0.839
1600	5.286	34.094	26.924	117.4	0.870
1650	5.113	34.097	26.946	115.3	0.898

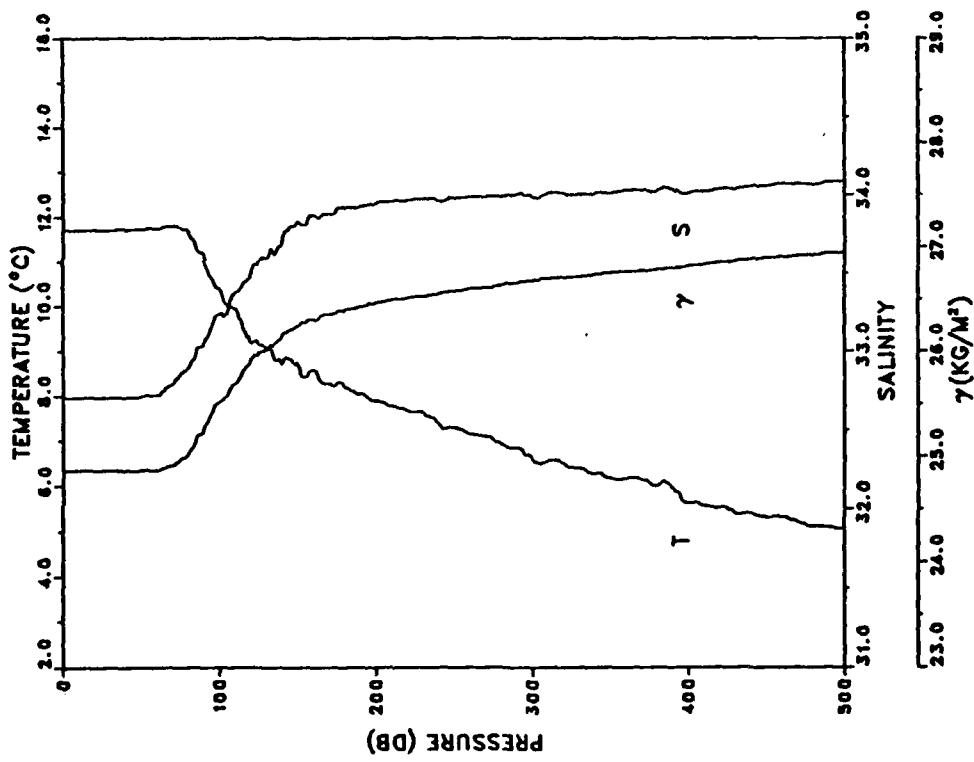


STATION: 94 LAT: 40 30.5 N LON: 125 28.7 W
DATE: 3/25/87 TIME: 1236Z



STATION: 791 LAT: 40 22.9 N LON: 125 28.5 W
DATE: 3/25/87 TIME: 1400Z

PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.699	32.705	24.863	307.8	0.000
5	11.704	32.705	24.862	308.0	0.012
10	11.705	32.705	24.862	308.1	0.028
15	11.704	32.705	24.862	308.2	0.043
20	11.704	32.705	24.862	308.3	0.059
26	11.705	32.705	24.862	308.4	0.077
31	11.709	32.705	24.862	308.6	0.092
35	11.714	32.705	24.861	308.8	0.105
41	11.710	32.705	24.861	308.9	0.123
46	11.714	32.704	24.860	309.1	0.139
50	11.723	32.711	24.864	308.8	0.151
61	11.743	32.720	24.867	308.8	0.185
70	11.791	32.788	24.911	304.8	0.213
80	11.673	32.894	25.015	295.1	0.243
91	10.964	33.066	25.277	270.3	0.274
100	10.394	33.239	25.511	248.2	0.297
126	9.129	33.574	25.961	203.7	0.356
151	8.628	33.817	26.250	178.6	0.404
176	8.290	33.916	26.379	166.7	0.447
201	7.886	33.950	26.466	158.7	0.488
226	7.633	33.968	26.517	154.2	0.527
250	7.292	33.975	26.571	149.3	0.563
275	7.027	33.986	26.617	145.2	0.600
300	6.802	33.979	26.668	140.4	0.636
325	6.413	33.996	26.707	137.0	0.670
350	6.170	34.009	26.748	133.2	0.704
375	6.061	34.023	26.773	131.1	0.737
400	5.612	34.007	26.816	127.0	0.769
425	5.494	34.036	26.853	123.6	0.801
450	5.308	34.057	26.892	120.1	0.831
475	5.144	34.065	26.917	117.8	0.861
500	5.055	34.089	26.947	115.2	0.890



PRESS	TEMP	SAL	DENSITY ANOMALY	SVA	SUM DYN
1	11.617	32.729	24.897	304.6	0.000
5	11.617	32.729	24.897	304.7	0.012
11	11.623	32.730	24.897	304.8	0.030
15	11.619	32.728	24.896	305.0	0.043
20	11.618	32.728	24.896	305.1	0.058
26	11.619	32.728	24.896	305.2	0.076
31	11.620	32.728	24.896	305.4	0.091
36	11.621	32.728	24.895	305.5	0.107
41	11.621	32.728	24.895	305.6	0.122
45	11.631	32.729	24.894	305.8	0.134
51	11.630	32.730	24.895	305.8	0.153
60	11.649	32.743	24.902	305.4	0.180
71	11.349	32.803	25.003	296.0	0.213
81	10.725	32.849	25.150	282.2	0.242
91	9.346	32.863	25.391	259.2	0.269
100	9.533	33.029	25.490	249.9	0.292
126	8.795	33.390	25.890	212.3	0.352
131	8.332	33.562	26.095	193.1	0.403
176	7.916	33.766	26.17	172.4	0.449
200	7.842	33.885	26.422	162.9	0.489
225	7.590	33.934	28.497	156.1	0.529
250	7.348	33.976	28.564	150.0	0.567
276	6.944	33.981	26.624	144.5	0.605
301	6.850	34.011	26.860	141.3	0.641
325	6.464	34.002	26.705	137.2	0.674
350	6.322	34.015	26.733	134.7	0.708
375	5.799	33.972	26.766	131.6	0.742
401	5.518	33.994	26.817	126.8	0.775
426	5.631	34.051	26.849	124.2	0.807
450	5.217	34.034	26.884	120.7	0.836
475	5.243	34.072	26.912	118.5	0.866
500	4.969	34.079	26.949	114.9	0.895

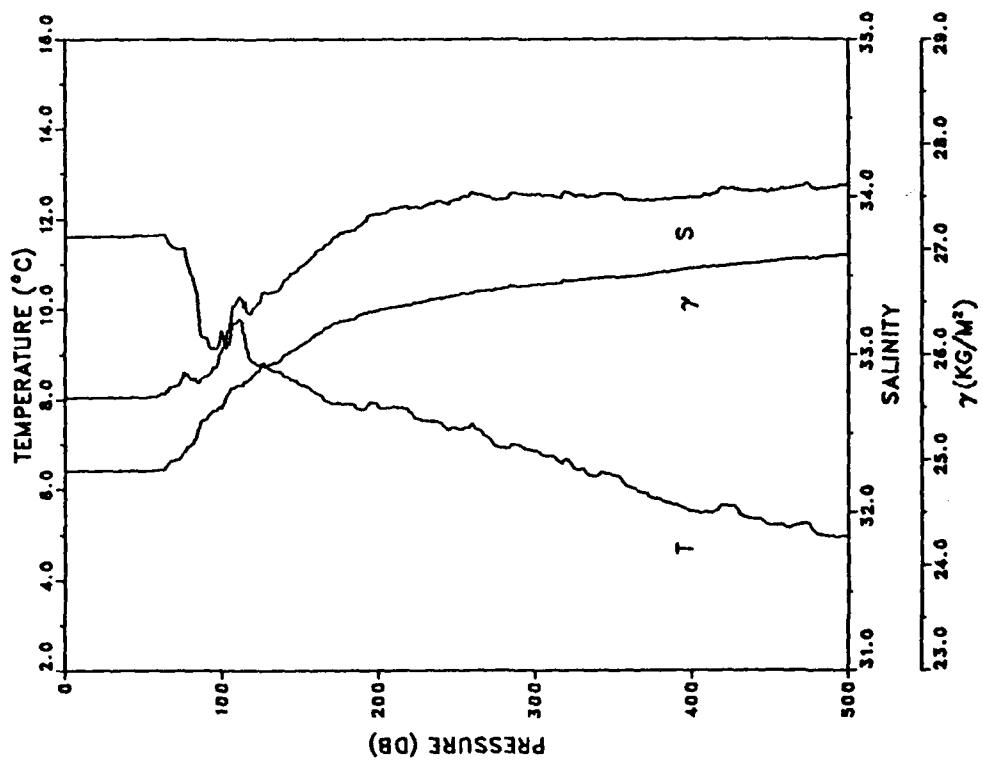
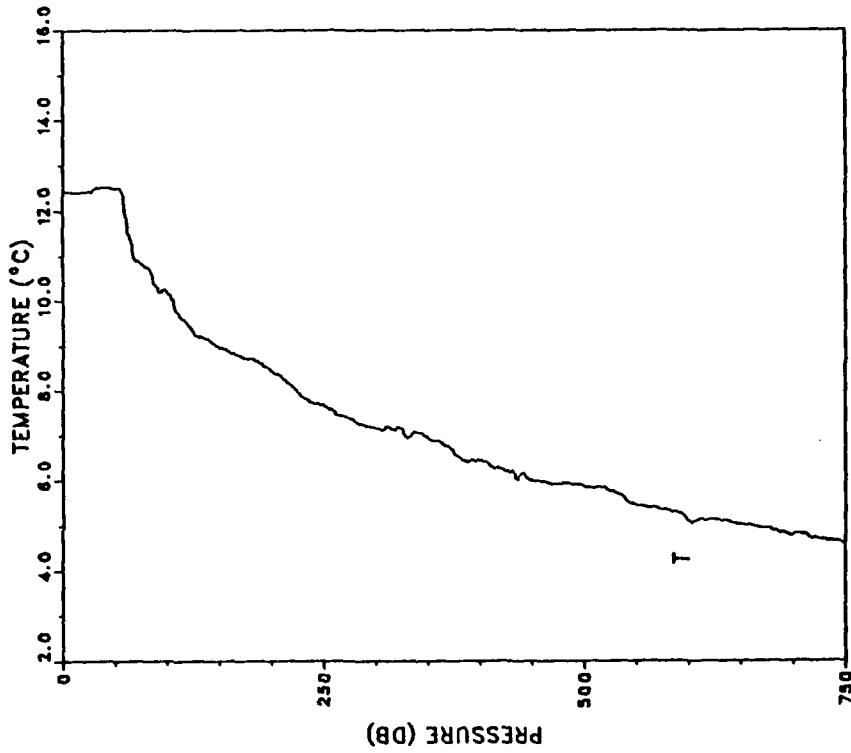
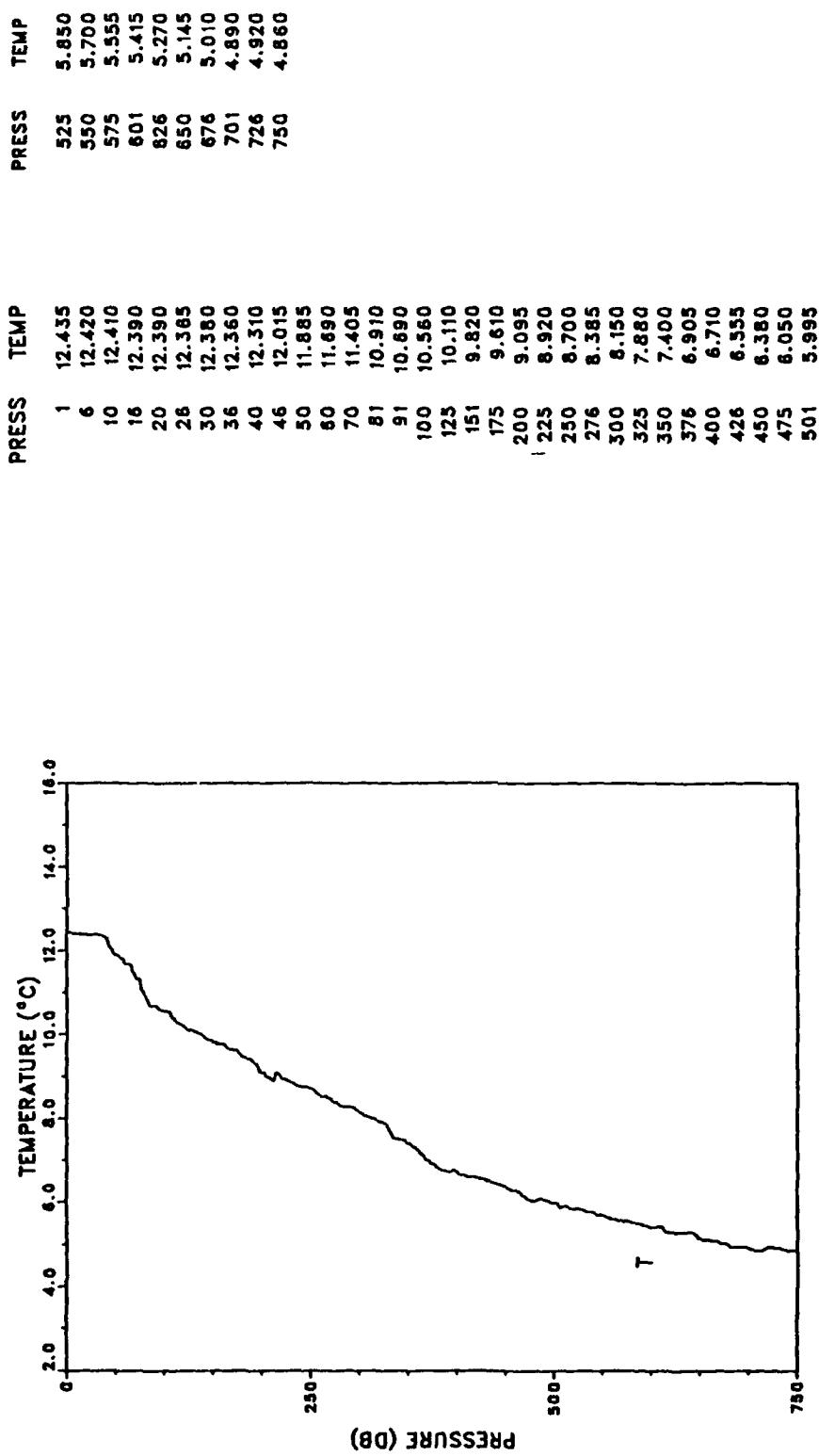


Figure 22. Vertical profiles of temperature for all XBT stations of cruise CTZ1, with listing of selected data points.

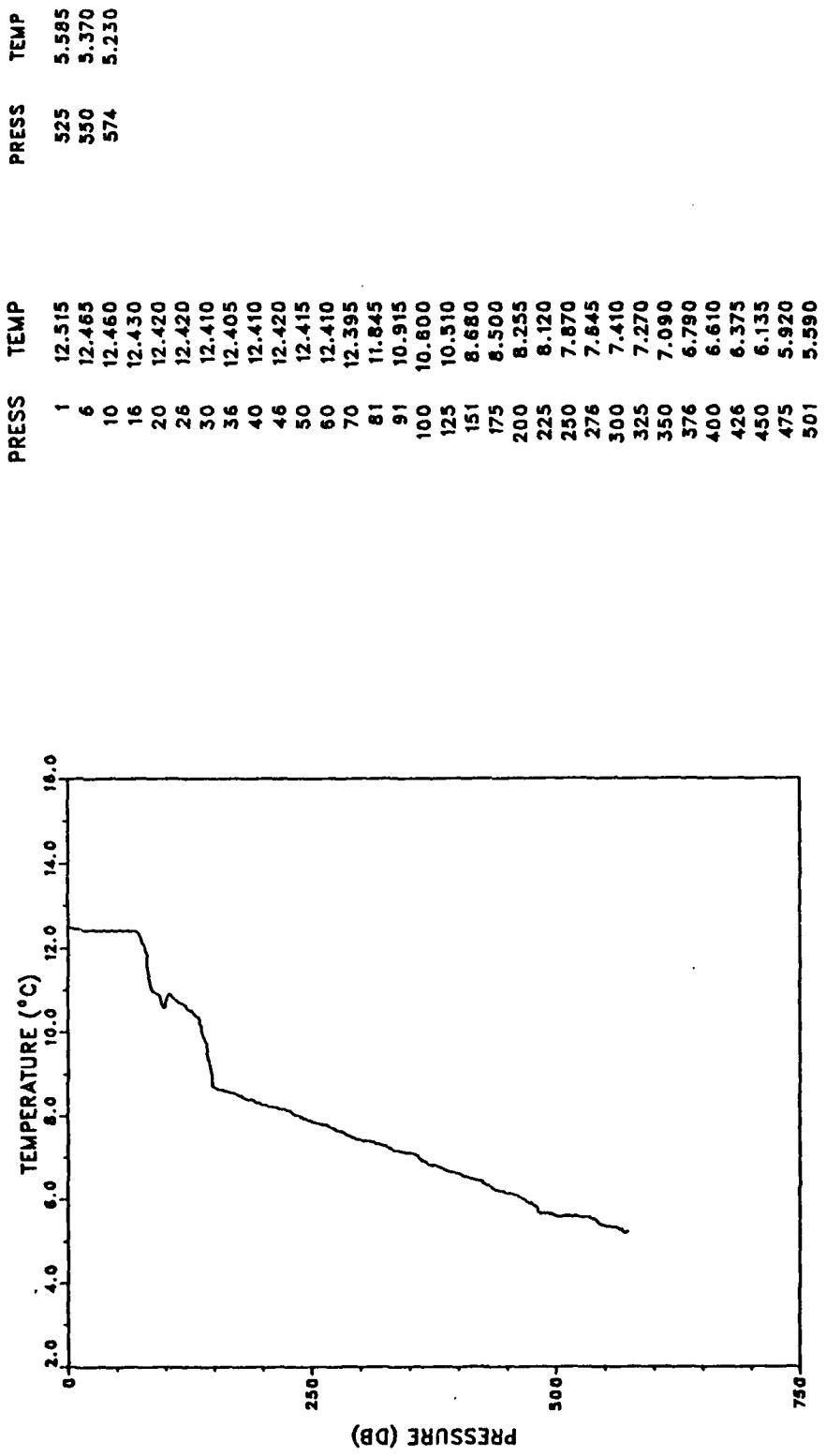
PRESS	TEMP	PRESS	TEMP
1	12.450	525	5.775
6	12.420	550	5.450
10	12.405	575	5.355
16	12.400	601	5.085
20	12.410	626	5.130
26	12.435	650	5.015
30	12.495	676	4.935
36	12.530	701	4.800
40	12.530	726	4.710
46	12.505	750	4.610
50	12.480		
60	11.950		
70	10.905		
81	10.740		
91	10.285		
100	10.205		
125	9.315		
151	8.950		
175	8.720		
200	8.450		
225	7.970		
250	7.675		
276	7.370		
300	7.160		
325	7.160		
350	6.940		
376	6.575		
400	6.450		
426	6.205		
450	5.980		
475	5.910		
501	5.860		

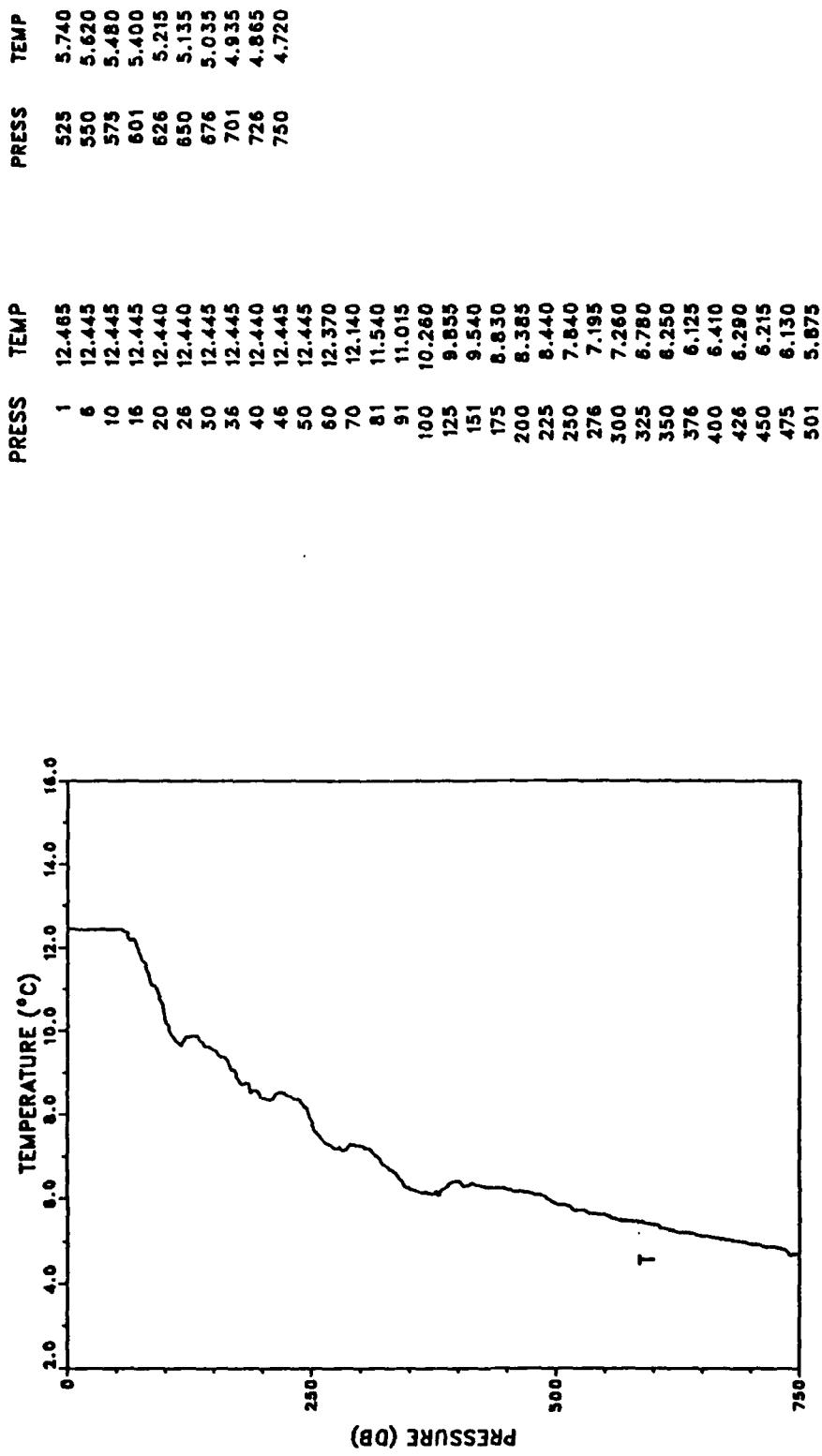


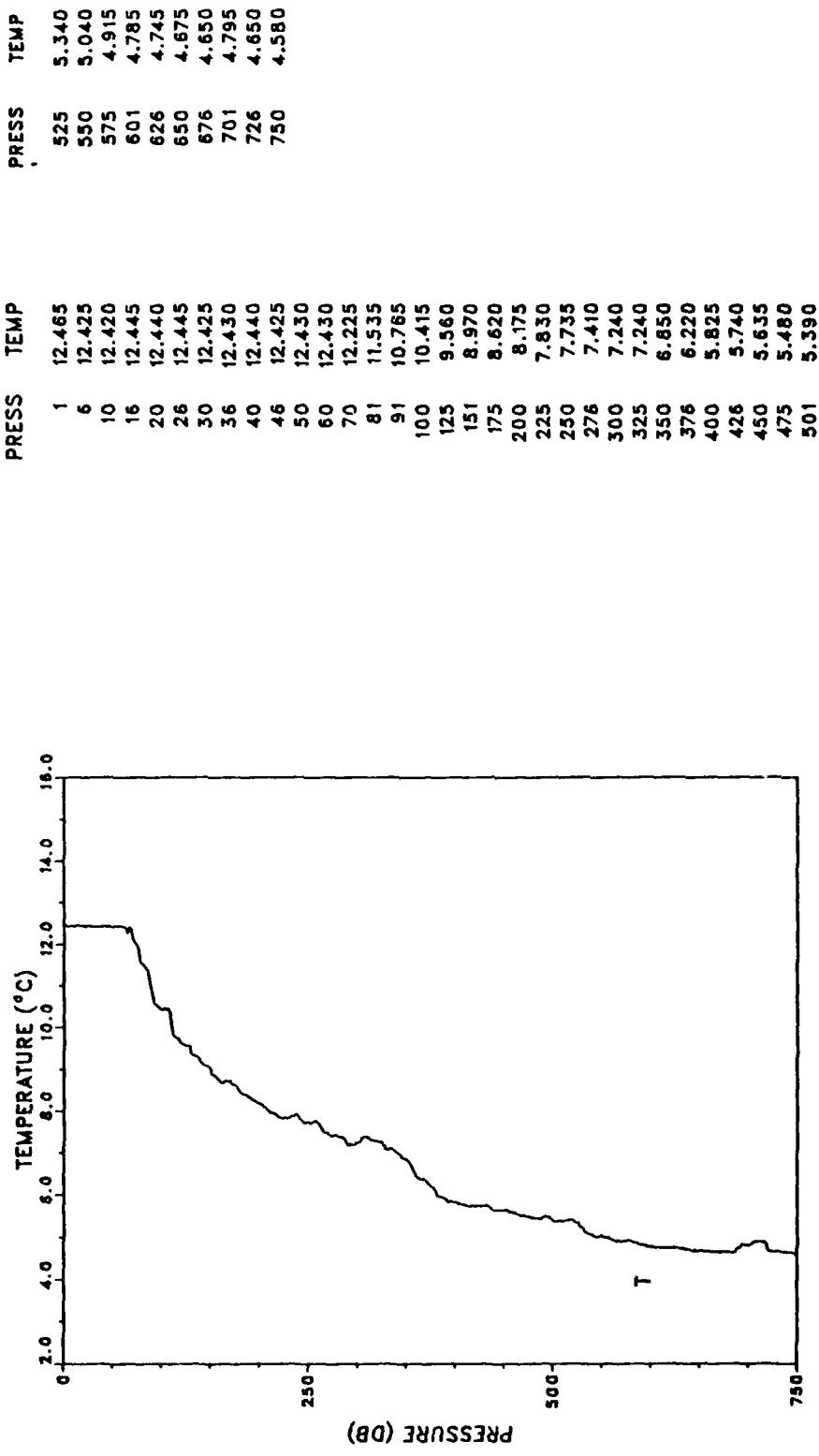
STATION: 31 LAT: 37 38.3 N LON: 123 53.2 W
DATE: 3/20/87 TIME: 0030Z



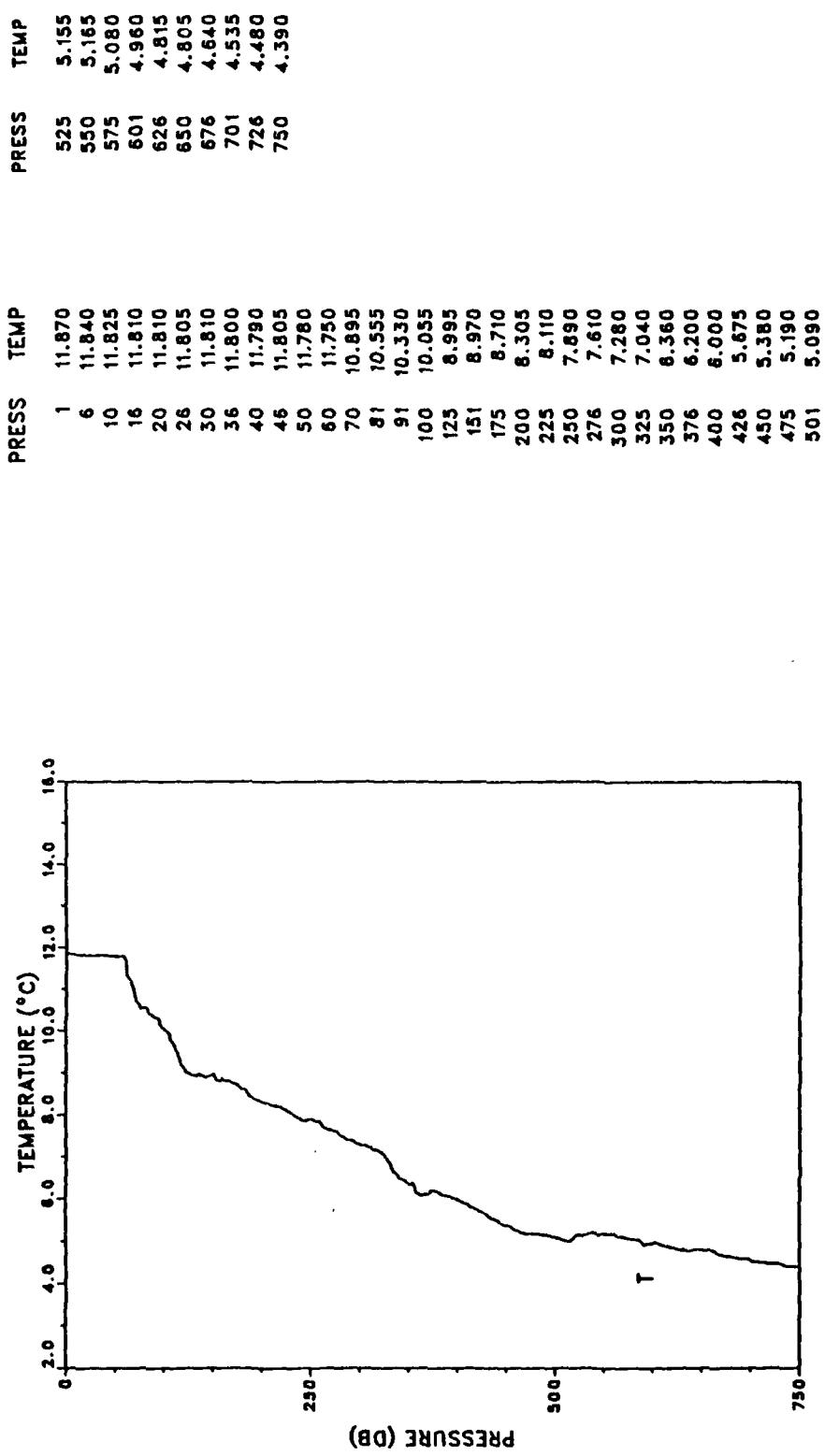
STATION: 101 LAT: 37 42.1 N LON: 123 43.5 W
DATE: 3/20/87 TIME: 0300Z



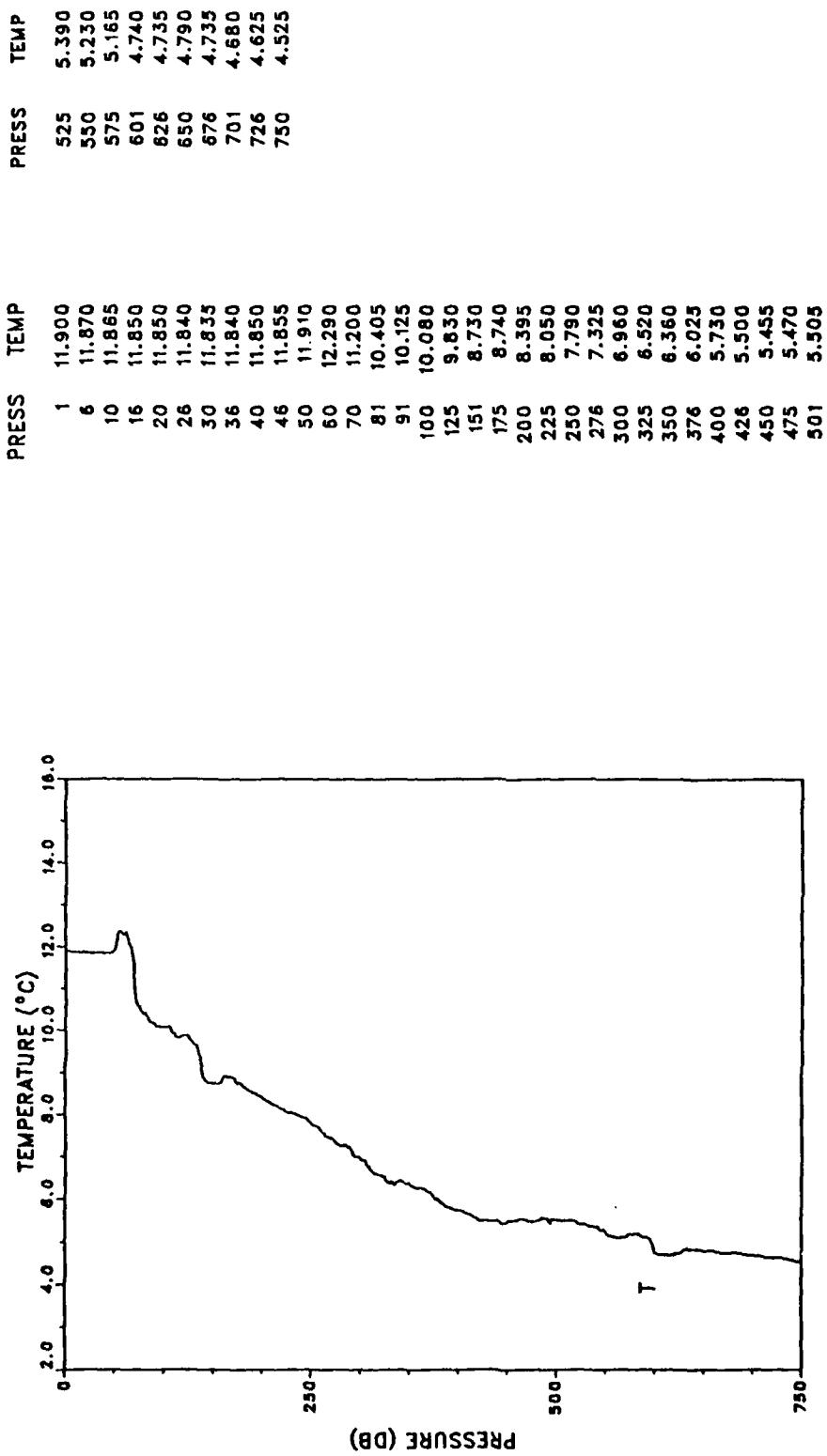




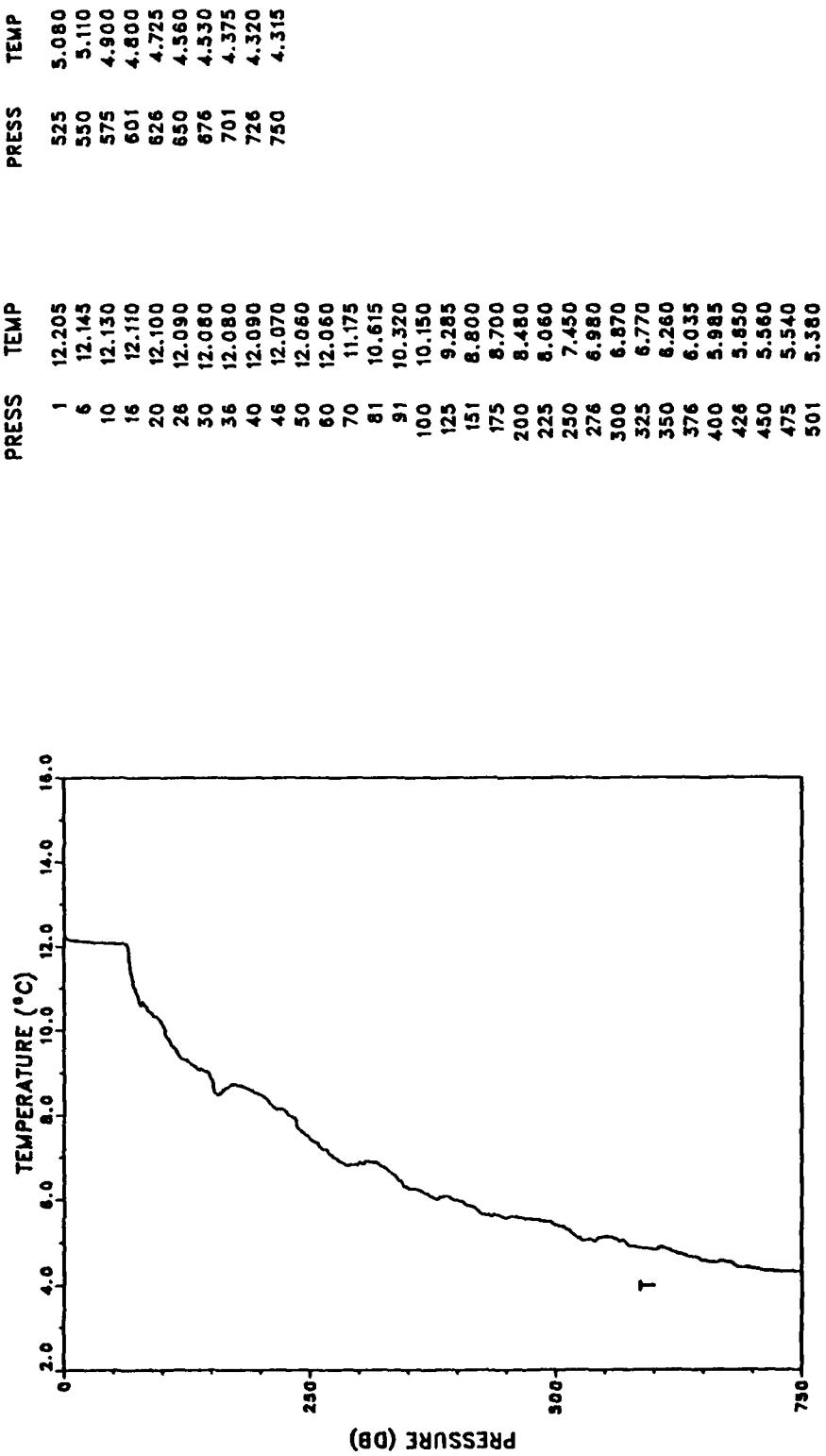
STATION: 104 LAT: 38 7.4 N LON: 123 41.8 W
 DATE: 3/20/87 TIME: 1406Z



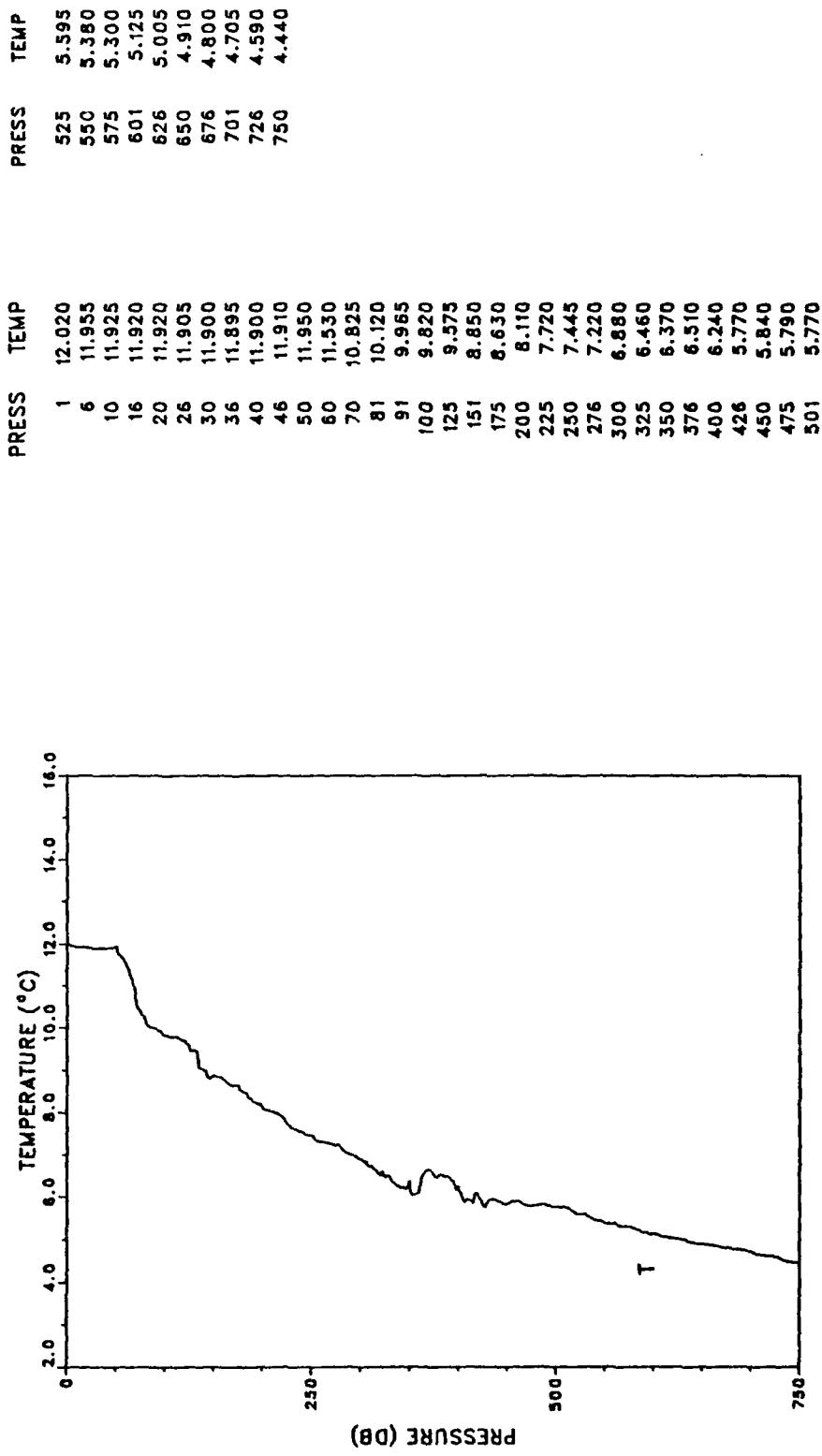
STATION: 105 LAT: 38 11.6 N LON: 123 51.3 W
DATE: 3/20/87 TIME: 1600Z



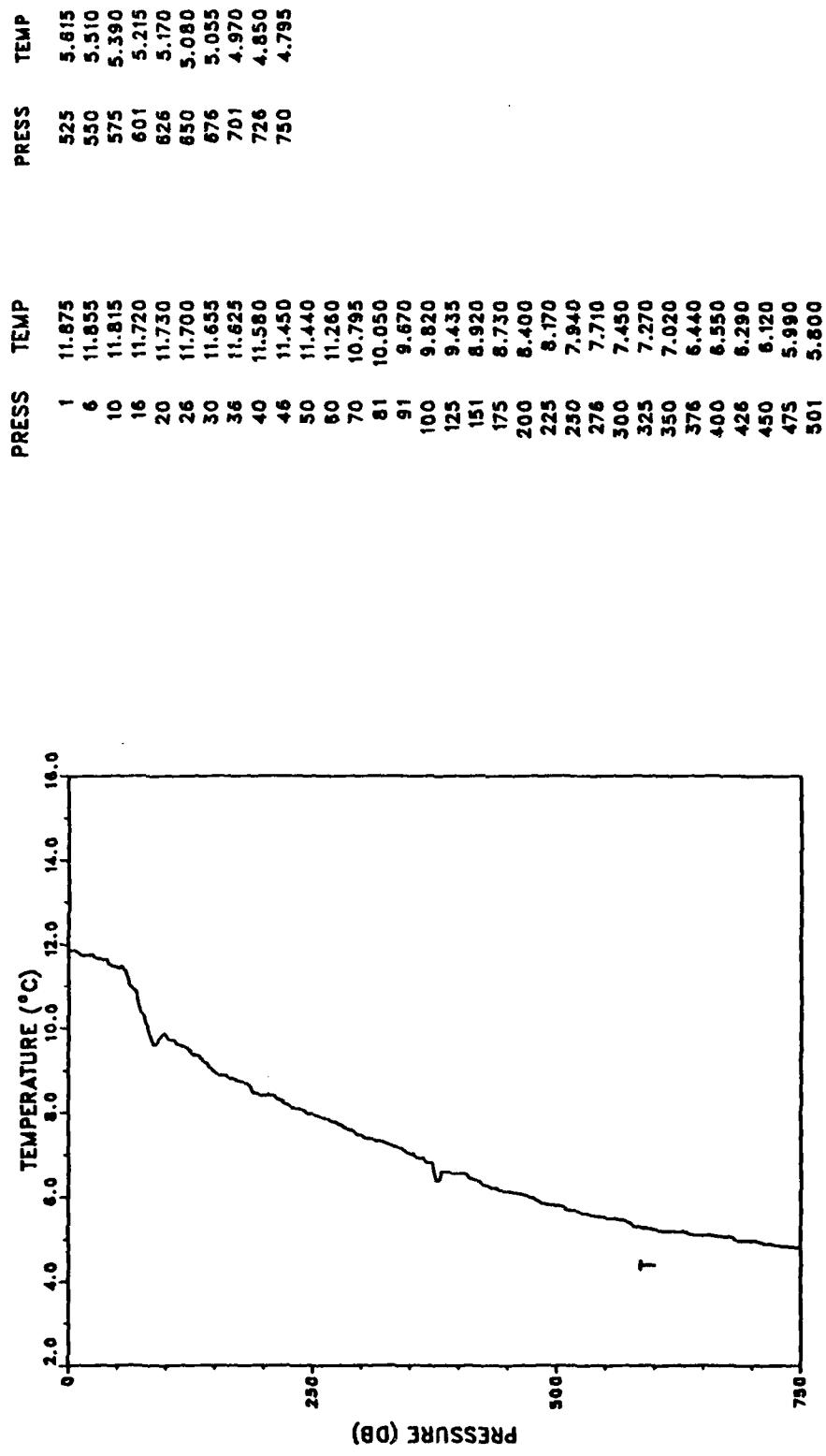
STATION: 106 LAT: 38 18.3 N LON: 123 55.3 W
 DATE: 3/20/87 TIME: 1648Z

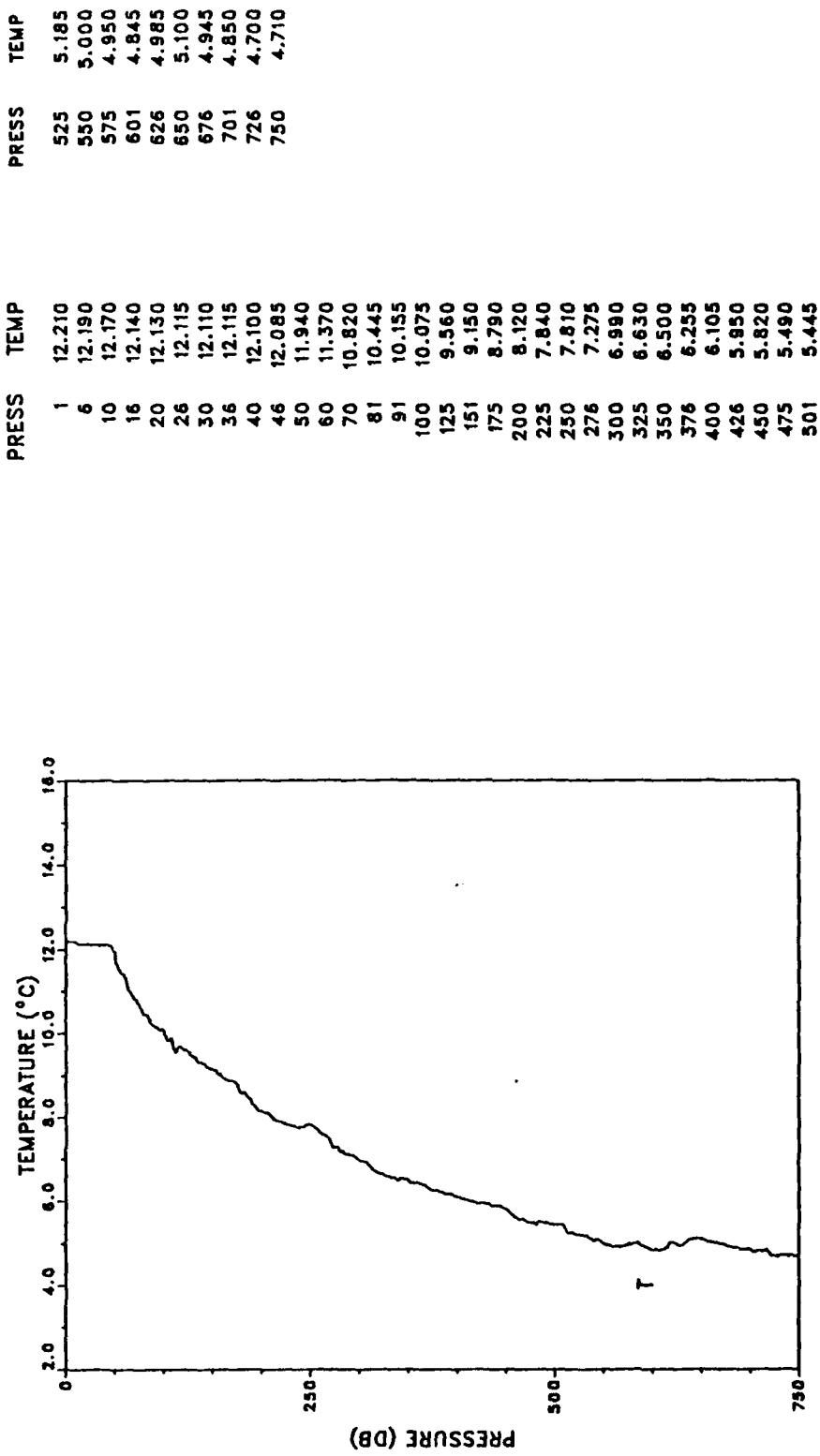


STATION: 107 LAT: 38 27.6 N LON: 123 51.2 W
DATE: 3/20/87 TIME: 1848Z



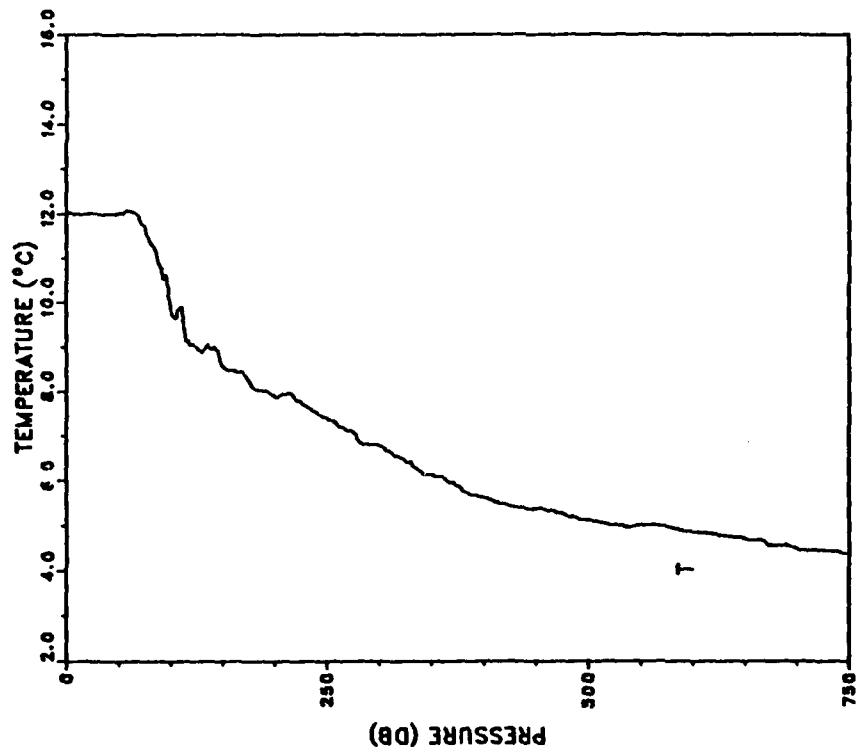
STATION: 108 LAT: 38 30.9 N LON: 123 43.4 W
 DATE: 3/20/87 TIME: 1930Z



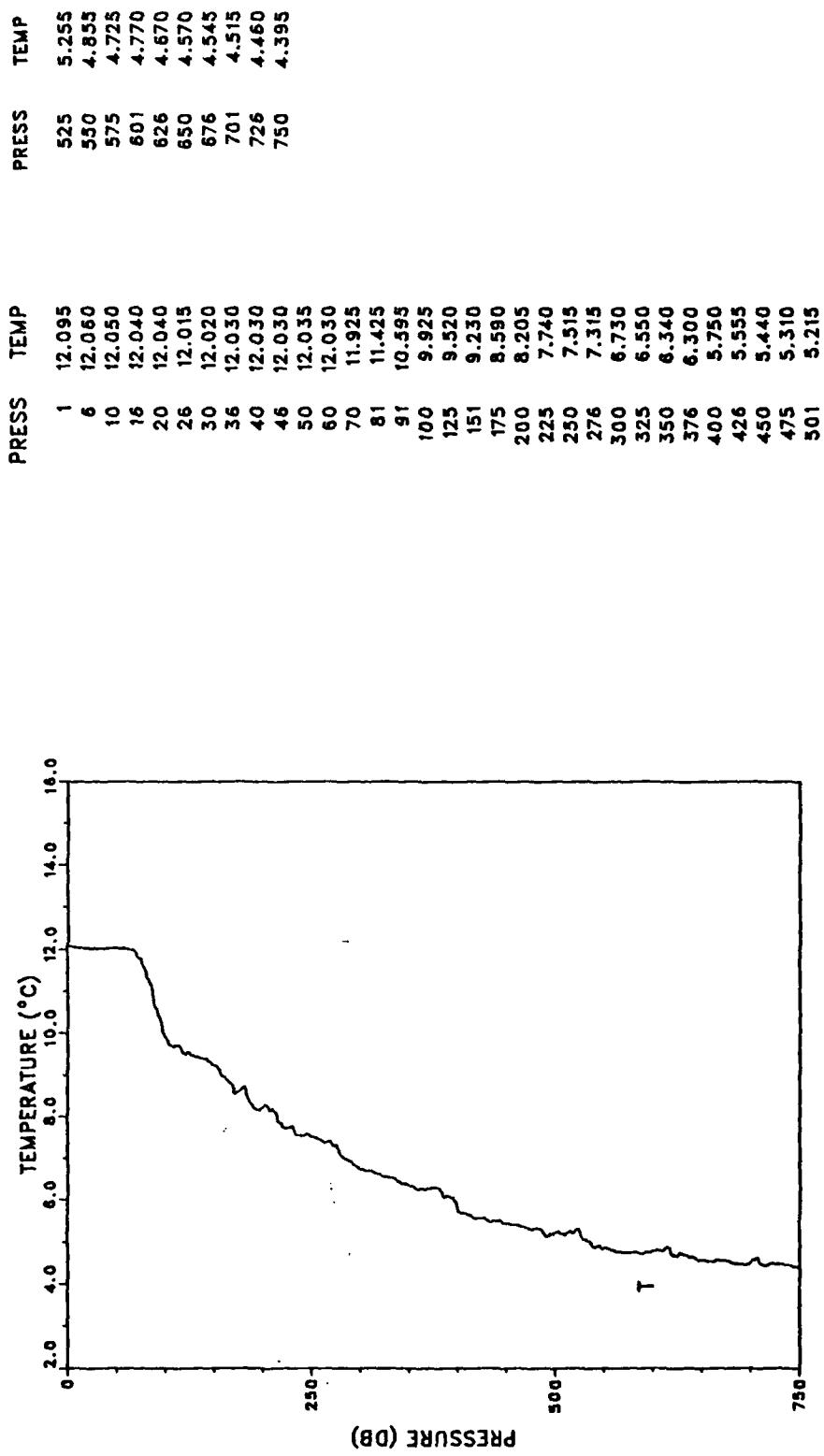


STATION: 110 LAT: 38 47.7 N LON: 124 6.2 W
DATE: 3/21/87 TIME: 0048Z

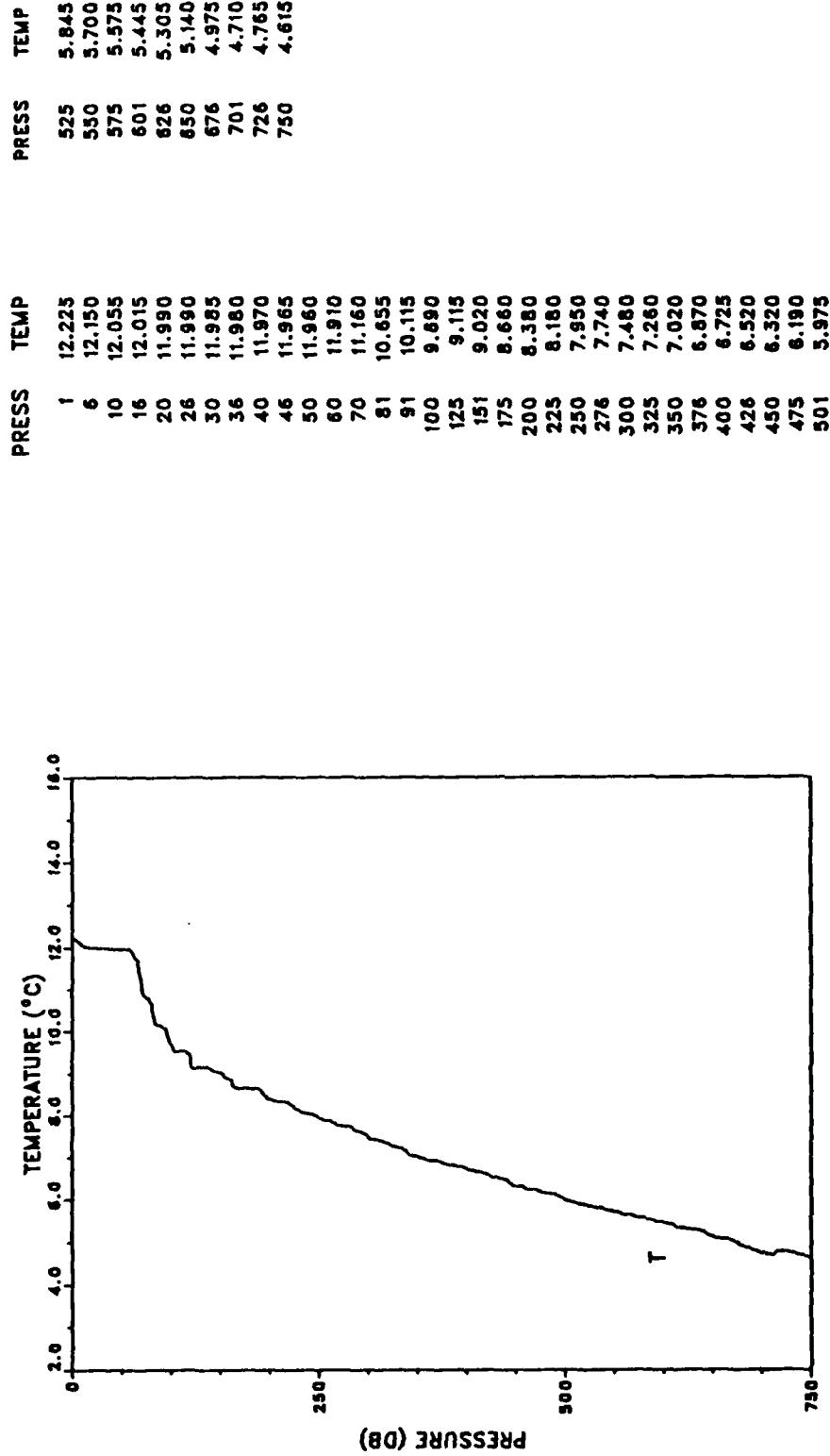
PRESS	TEMP	PRESS	TEMP
1	12.035	52.5	5.015
6	12.000	55.0	5.015
10	12.005	57.5	4.980
16	11.995	60.1	4.865
20	11.990	62.6	4.790
26	12.000	65.0	4.720
30	11.995	67.6	4.565
36	11.990	70.1	4.480
40	12.000	72.6	4.460
46	11.985	75.0	4.390
50	11.995		
60	12.080		
70	11.900		
81	11.345		
91	10.755		
100	9.950		
125	8.990		
151	8.540		
175	8.260		
200	7.900		
225	7.760		
250	7.395		
276	7.080		
300	6.780		
325	6.450		
350	6.140		
376	5.890		
400	5.620		
426	5.445		
450	5.385		
475	5.290		
501	5.120		

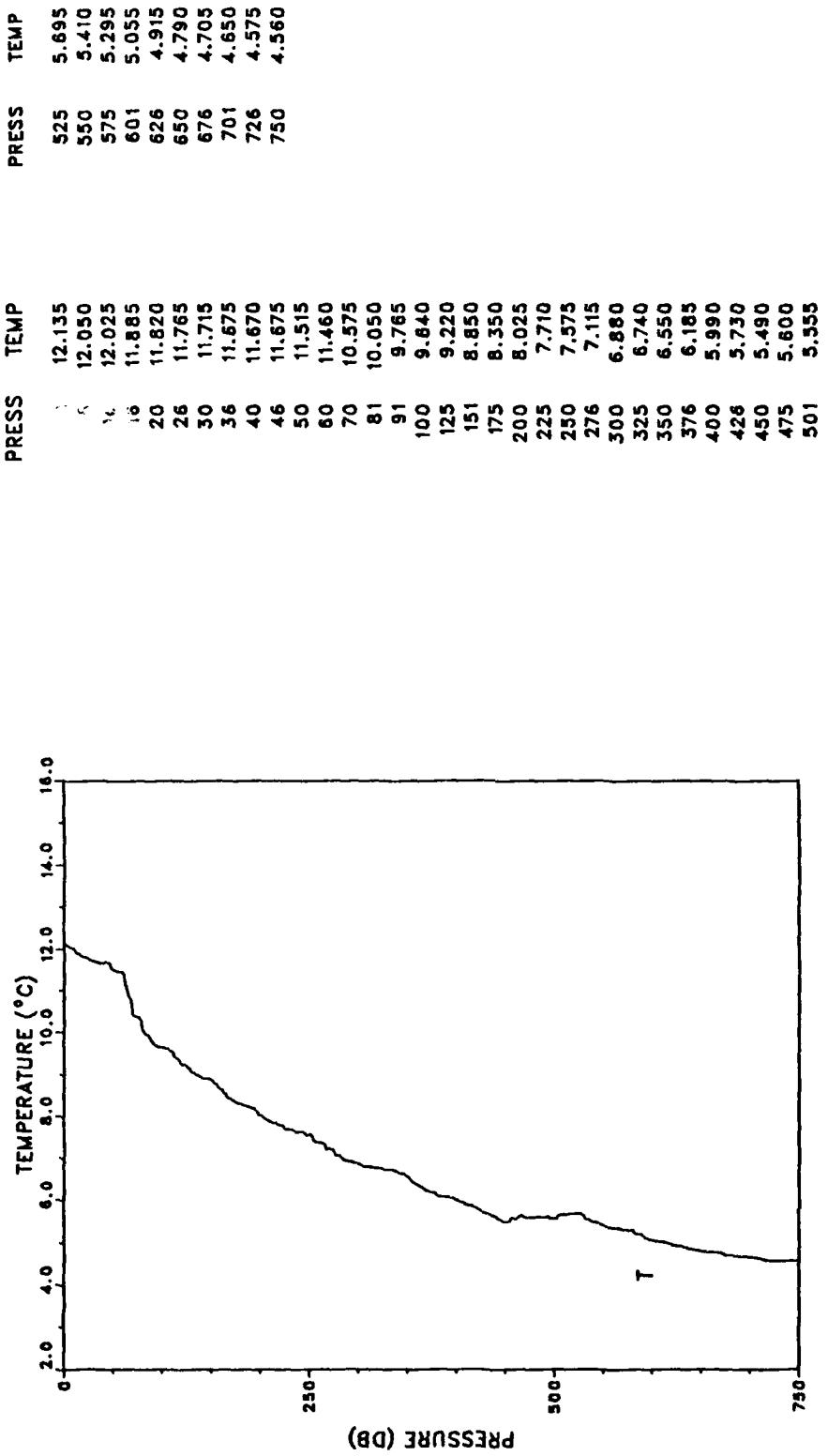


STATION: 111 LAT: 38 51.2 N LON: 124 17.5 W
DATE: 3/21/87 TIME: 0241Z



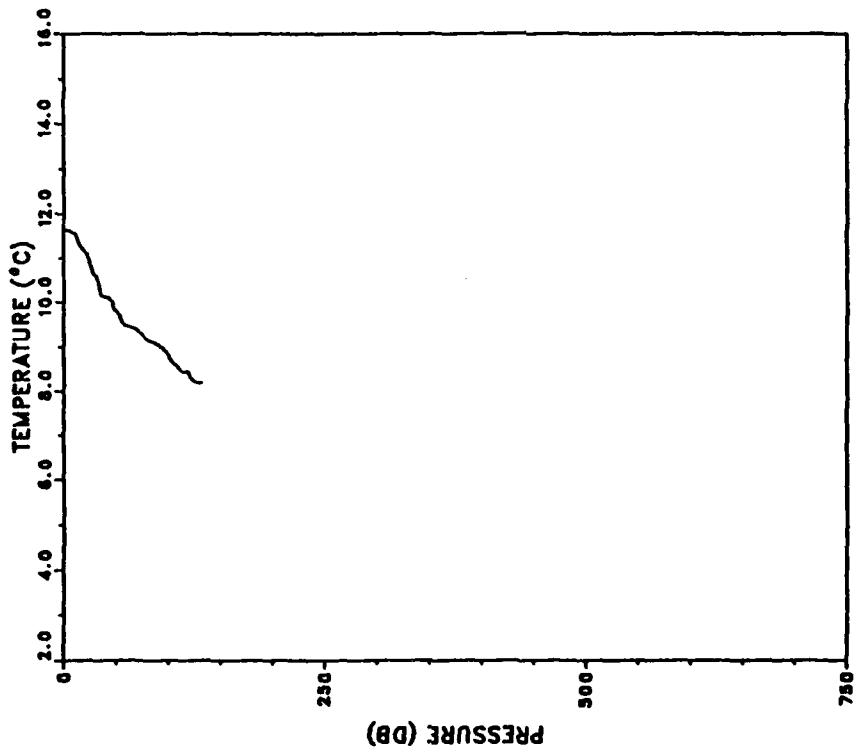
STATION: 112 LAT: 38 57.7 N LON: 124 21.3 W
DATE: 3/21/87 TIME: 0323Z



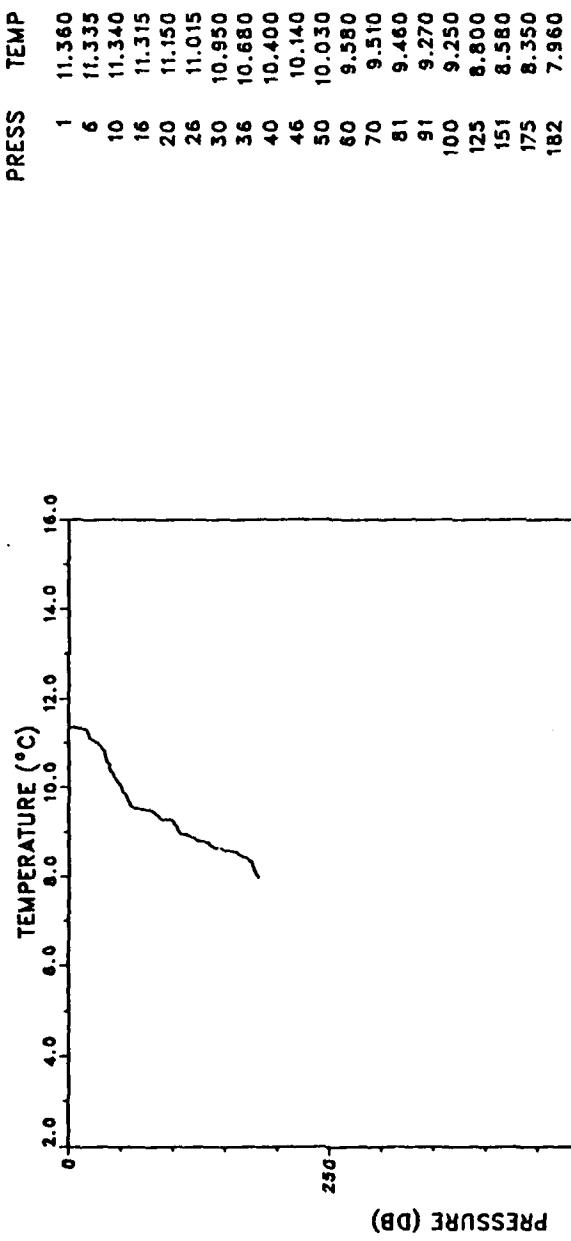


STATION: 114 LAT: 39 11.7 N LON: 124 7.6 W
DATE: 3/23/87 TIME: 0330Z

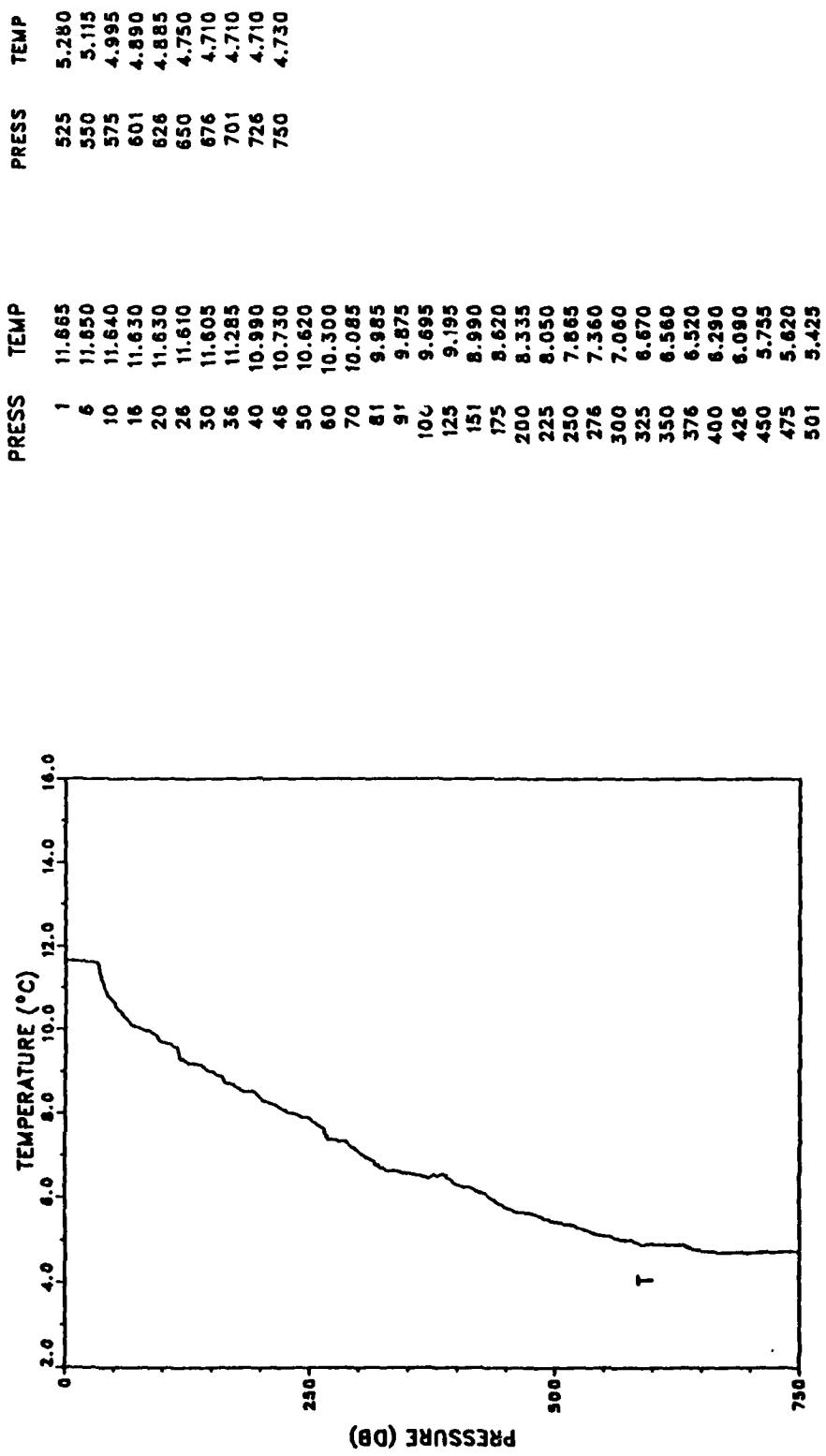
PRESS	TEMP
1	11.635
6	11.620
10	11.560
15	11.295
20	11.140
25	10.835
30	10.585
35	10.150
40	10.110
45	9.985
50	9.795
60	9.460
70	9.365
81	9.135
91	9.010
100	8.820
125	8.205
132	8.180



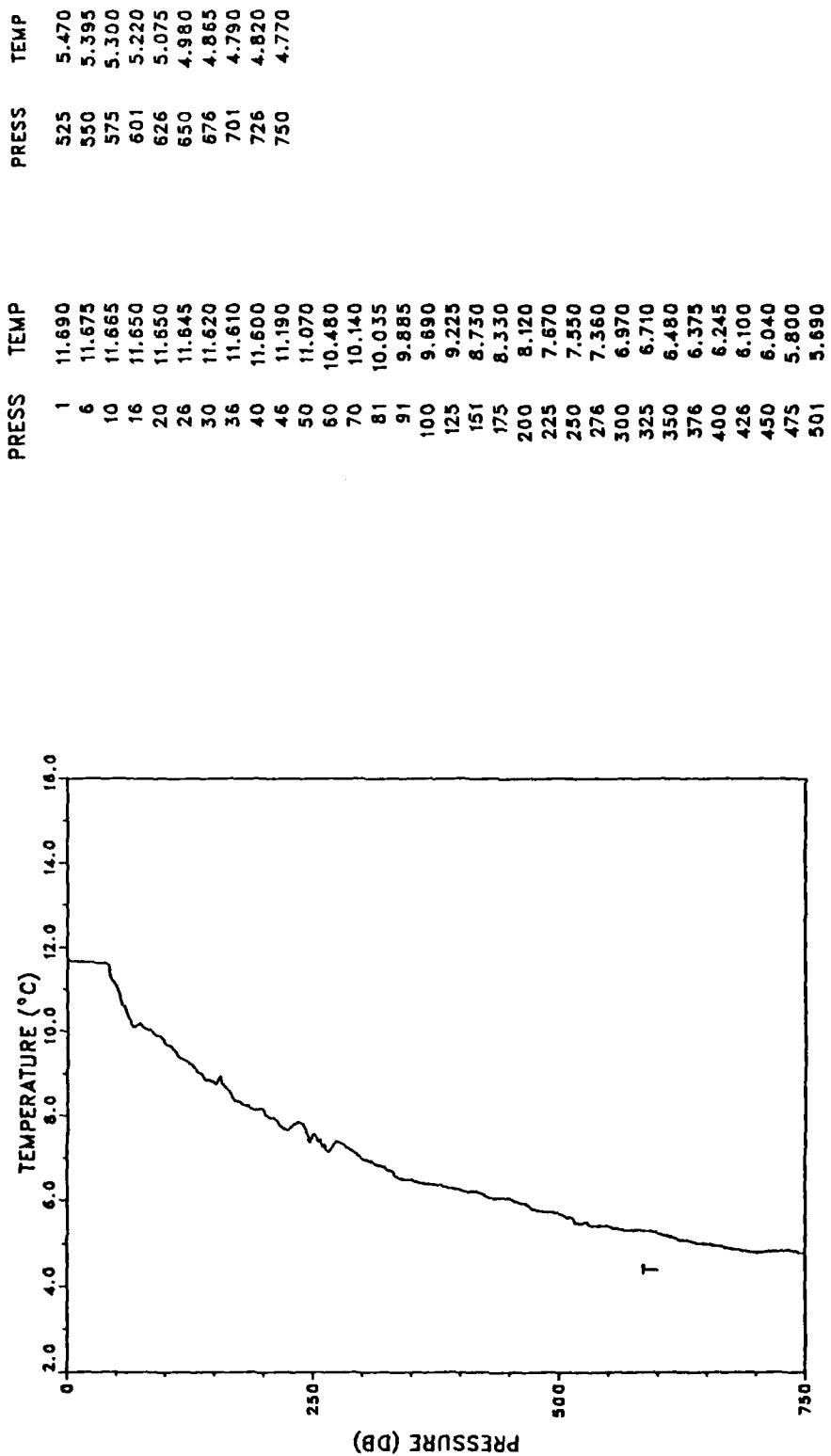
STATION: 115 LAT: 39 17.6 N
 DATE: 3/23/87 LON: 123 52.8 W
 TIME: 0448Z



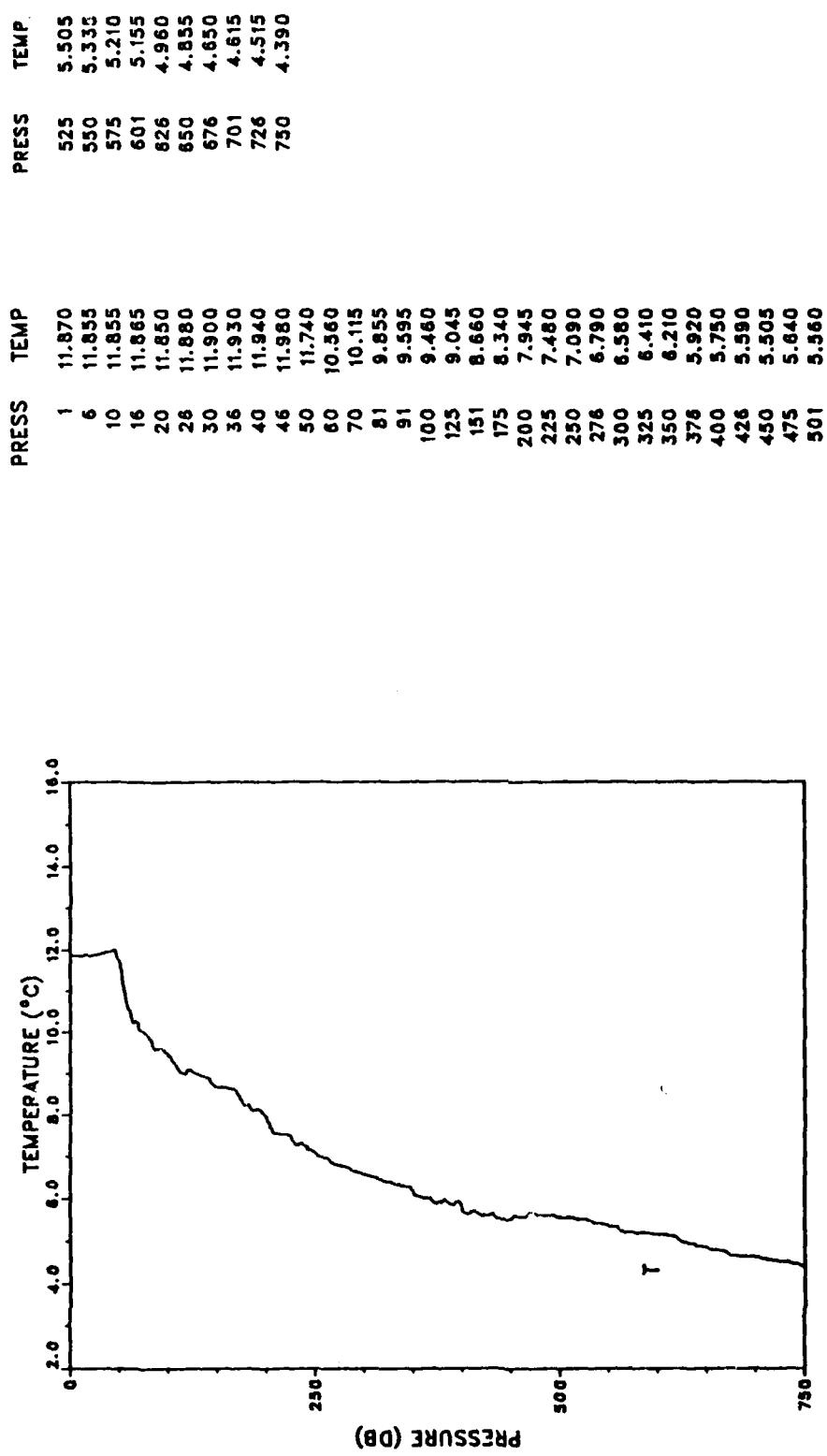
STATION: 116 LAT: 39 40.1 N LON: 123 57.7 W
DATE: 3/23/87 TIME: 0753Z



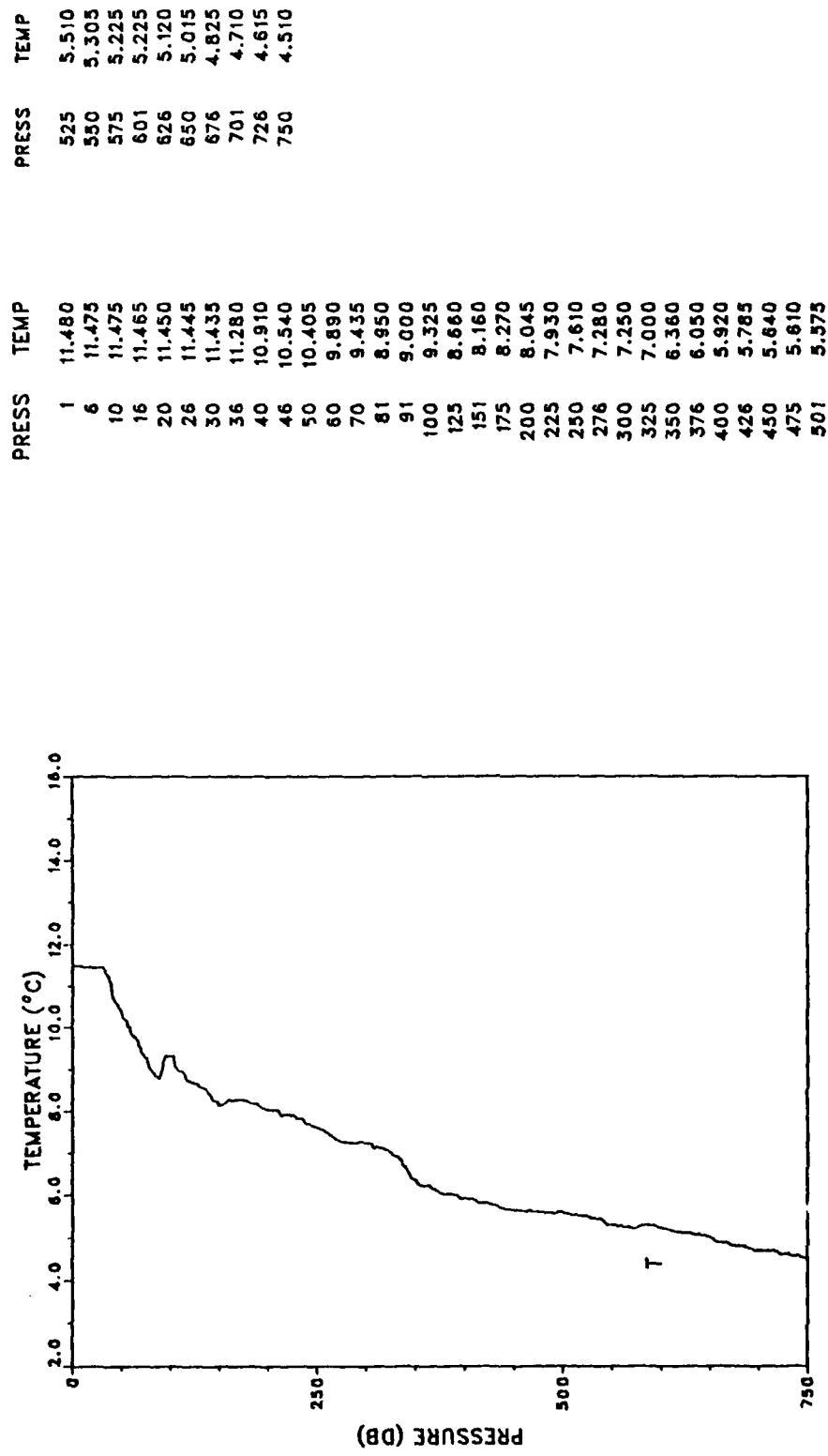
STATION: 117 LAT: 39 37.9 N LON: 124 2.9 W
DATE: 3/23/87 TIME: 0818Z



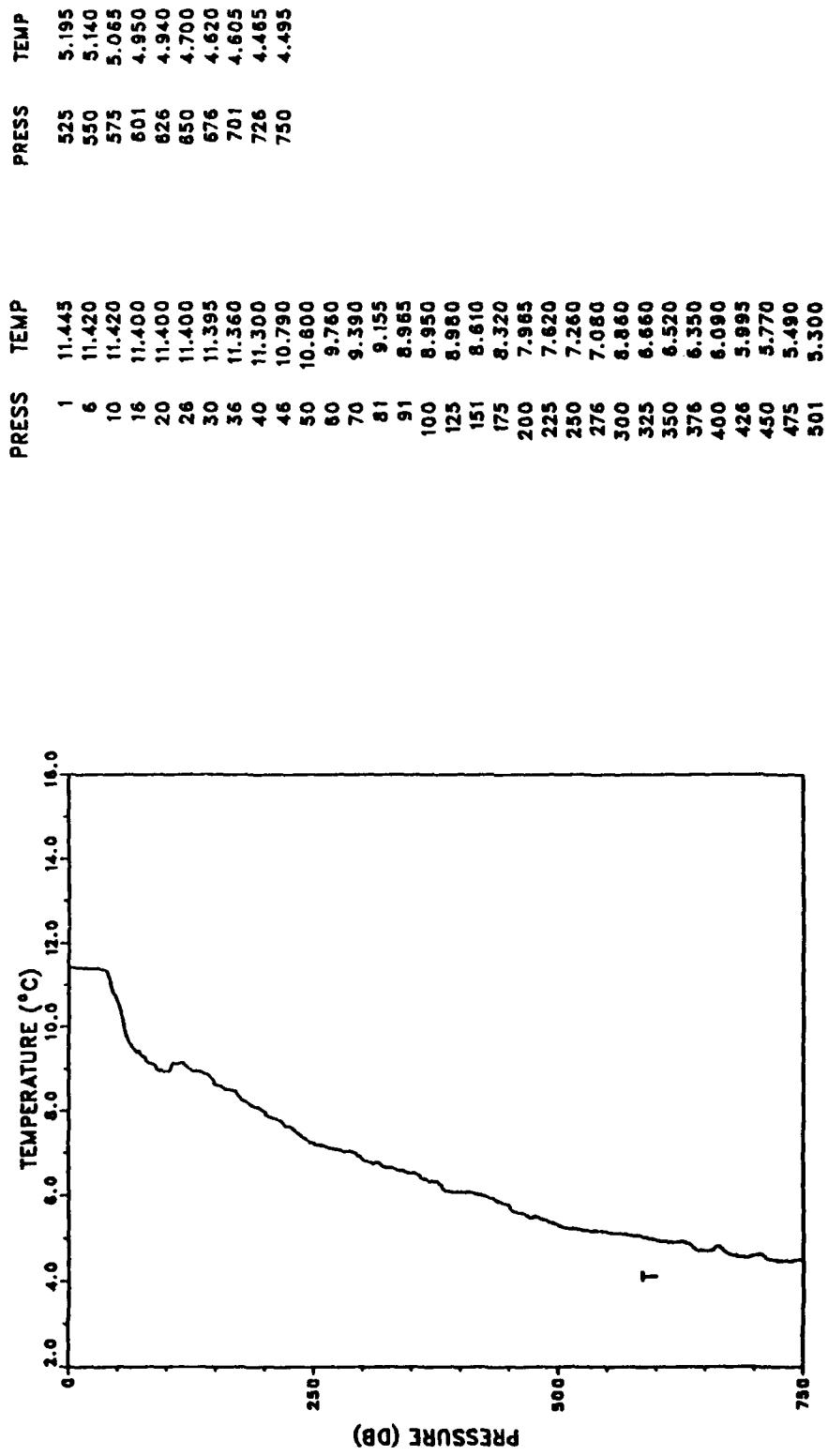
STATION: 118 LAT: 39 32.9 N LON: 124 15.2 W
DATE: 3/23/87 TIME: 0930Z



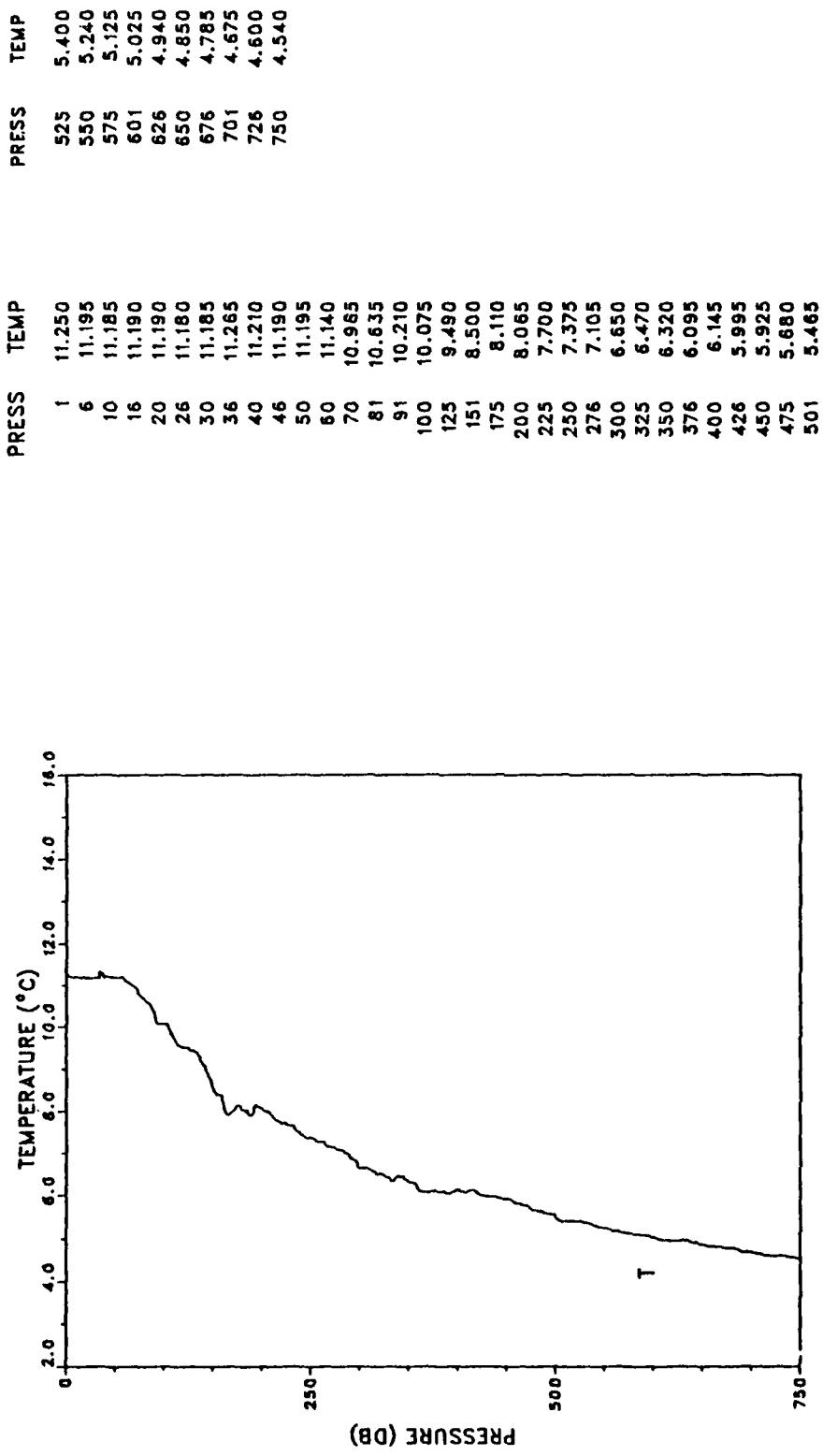
STATION: 119 LAT: 39 27.4 N LON: 124 26.8 W
 DATE: 3/23/87 TIME: 1048Z



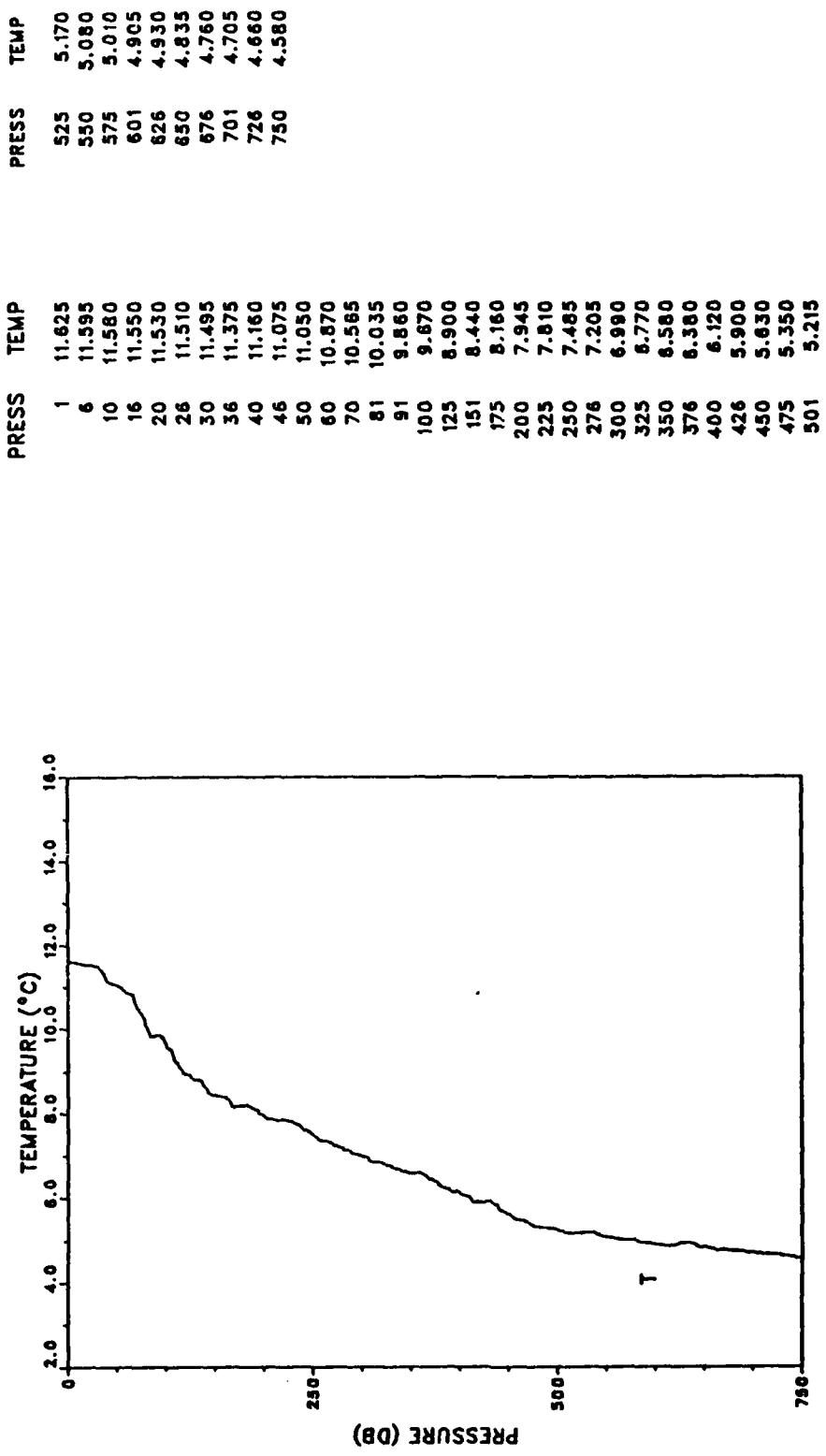
STATION: 120 LAT: 39 30.1 N LON: 124 42.1 W
DATE: 3/23/87 TIME: 1341Z



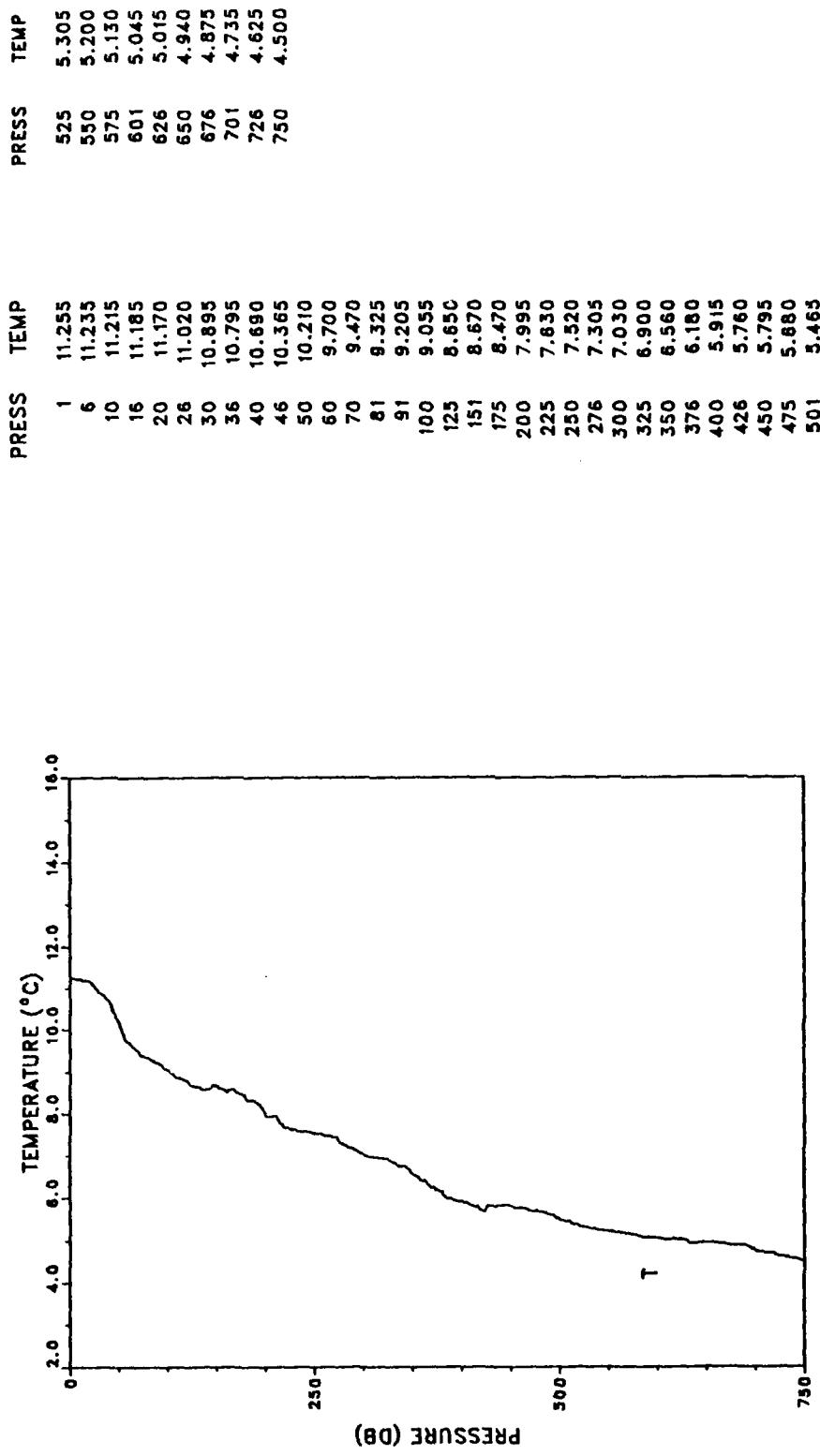
STATION: 121 LAT: 39 36.1 N LON: 124 46.2 W
 DATE: 3/23/87 TIME: 1453Z



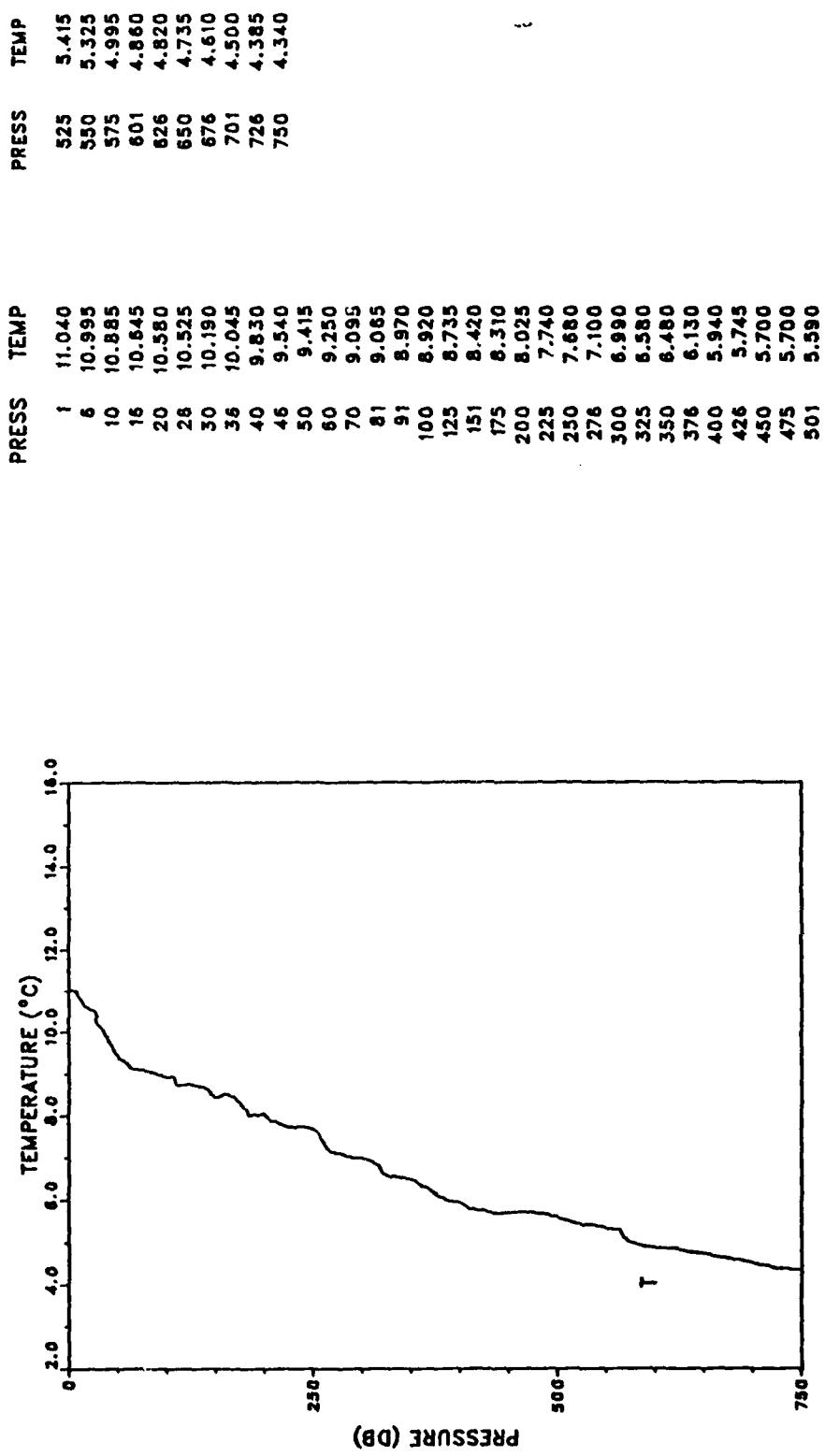
STATION: 122 LAT: 39 47.2 N LON: 124 38.6 W
DATE: 3/23/87 TIME: 1806Z



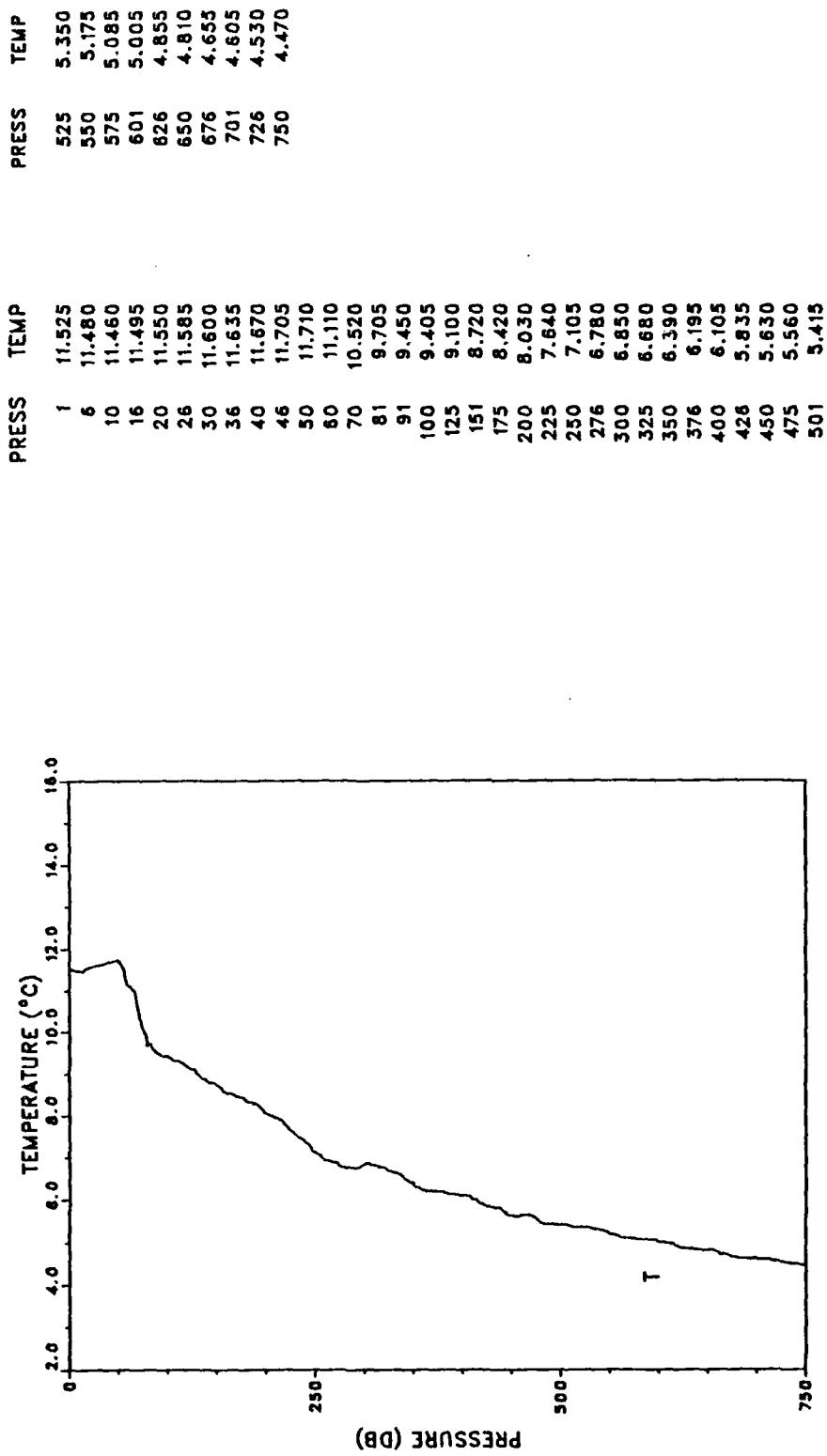
STATION: 123 LAT: 39 51.8 N LON: 124 27.5 W
DATE: 3/23/87 TIME: 1918Z



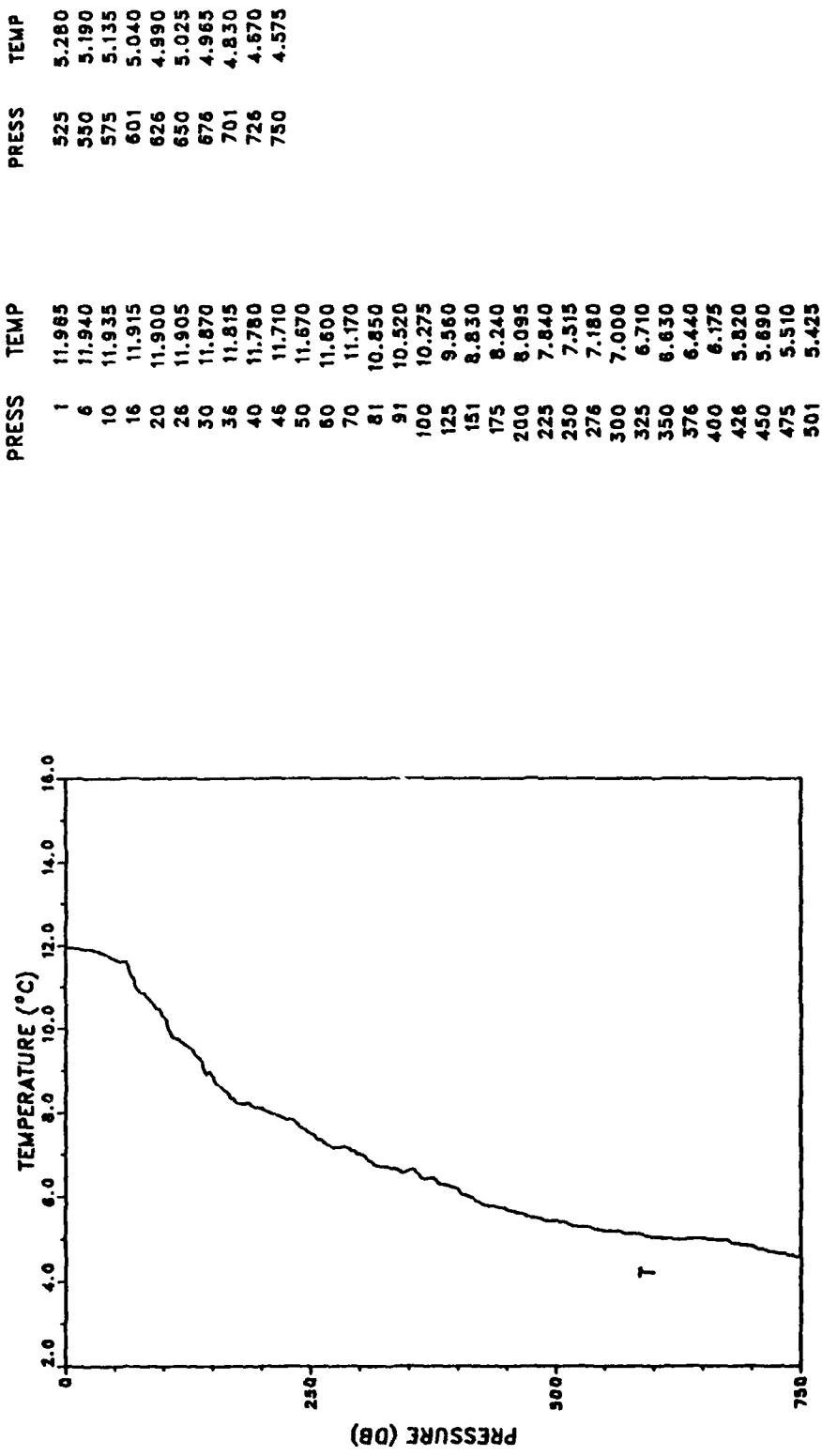
STATION: 124 LAT: 39 56.9 N LON: 124 15.8 W
DATE: 3/23/87 TIME: 2030Z

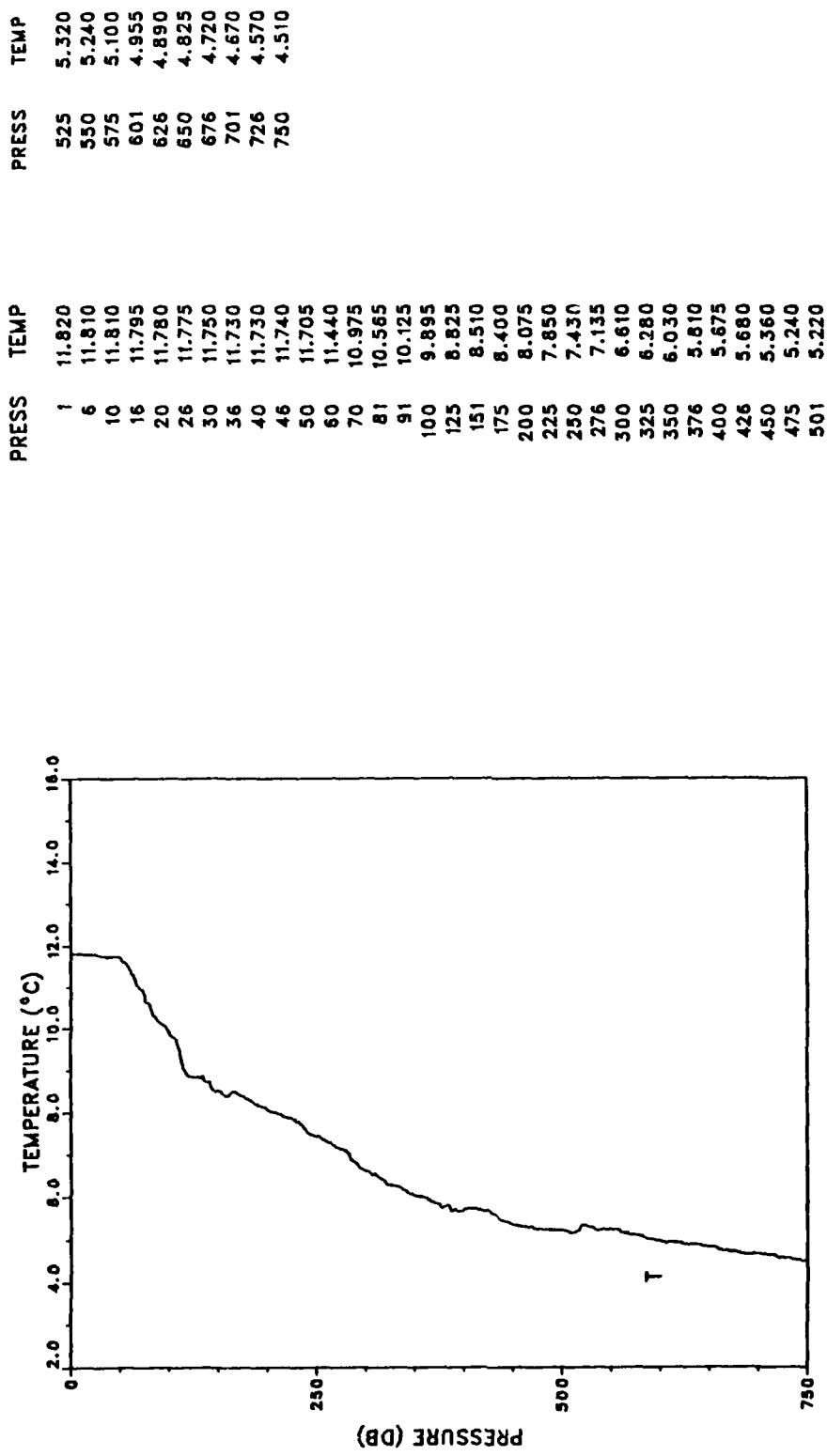


STATION: 125 LAT: 40 0.4 N LON: 124 15.9 W
 DATE: 3/23/87 TIME: 2153Z

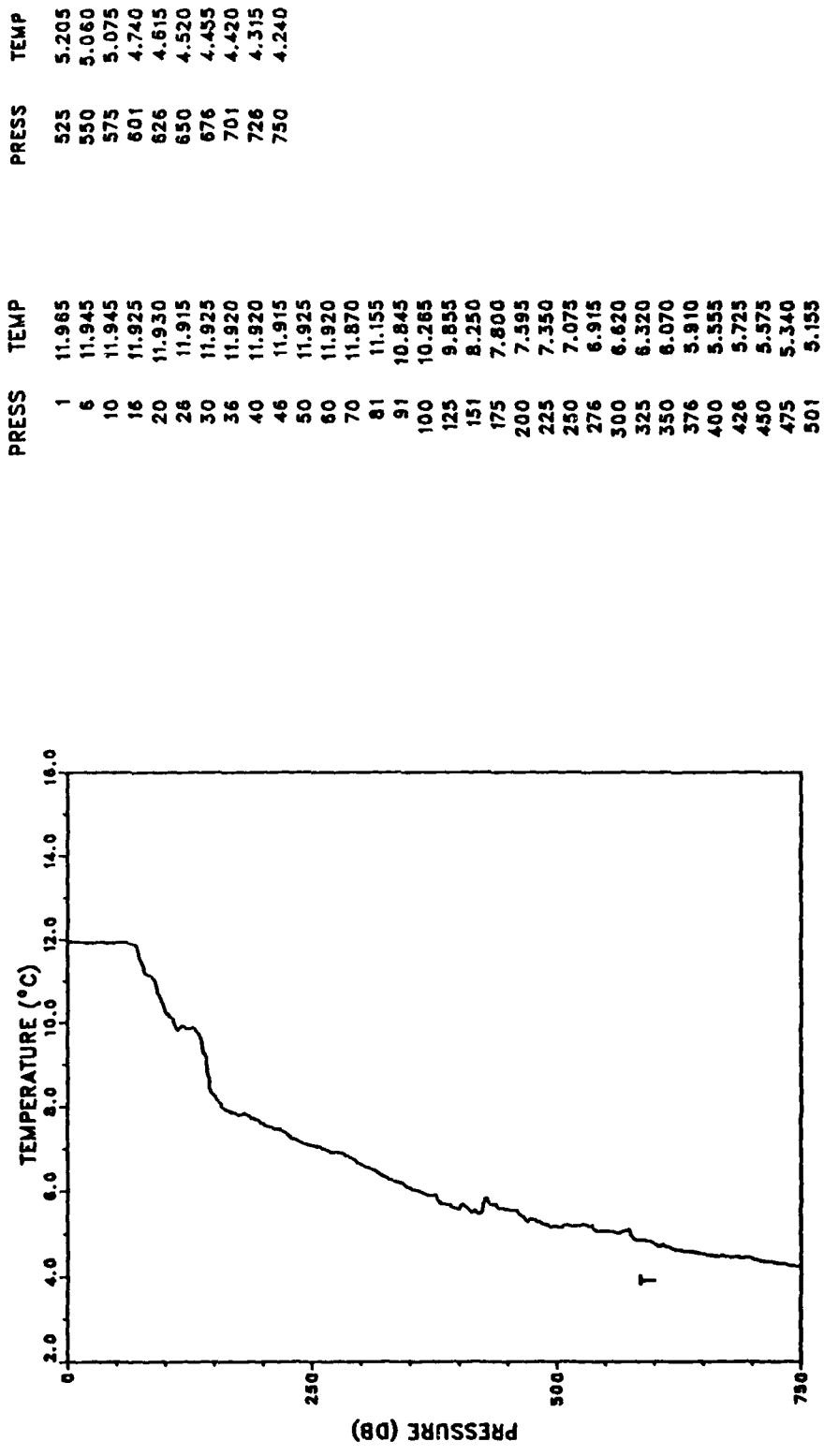


STATION: 126 LAT: 40 0.3 N LON: 124 28.0 W
DATE: 3/23/87 TIME: 2300Z

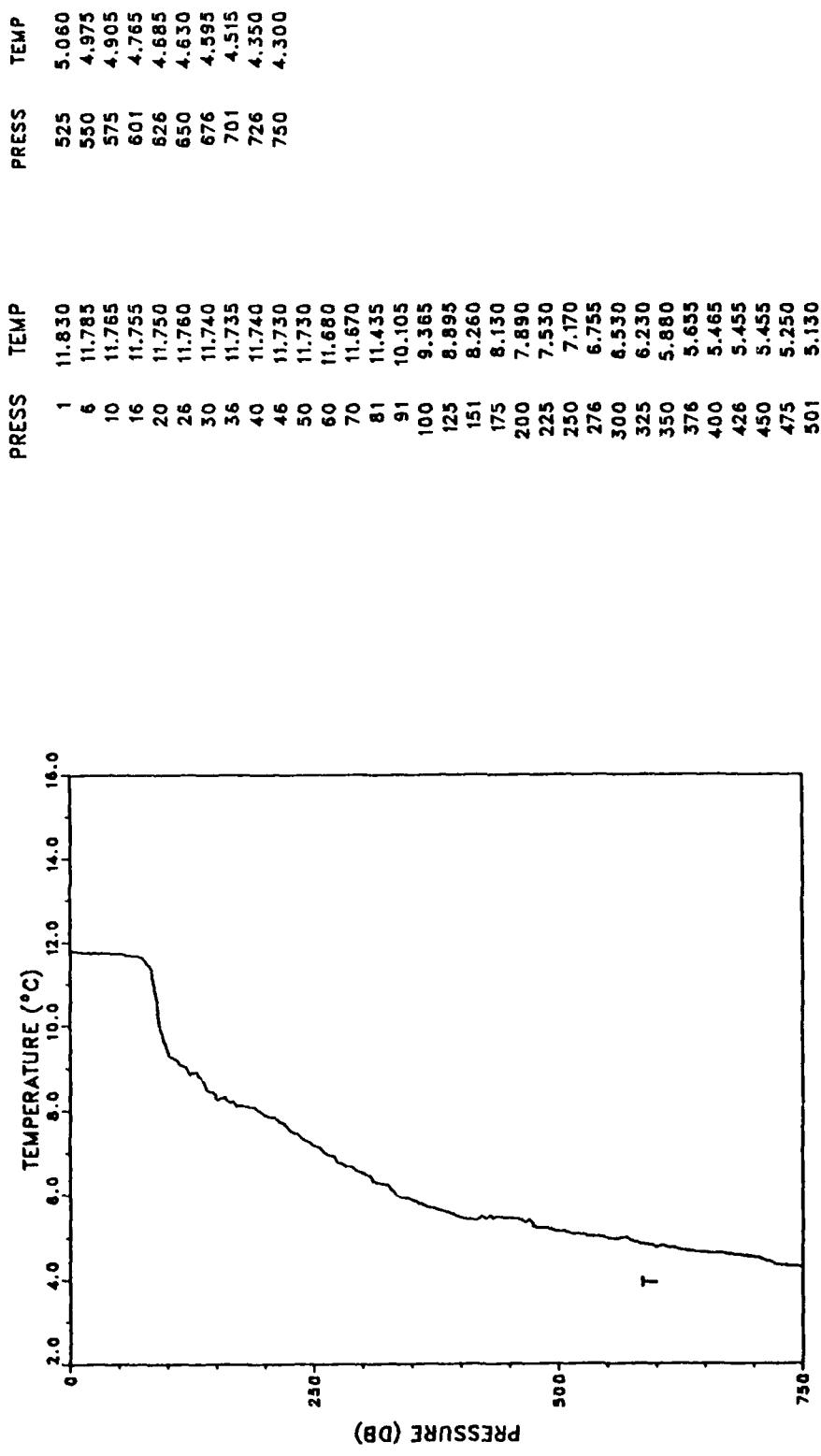




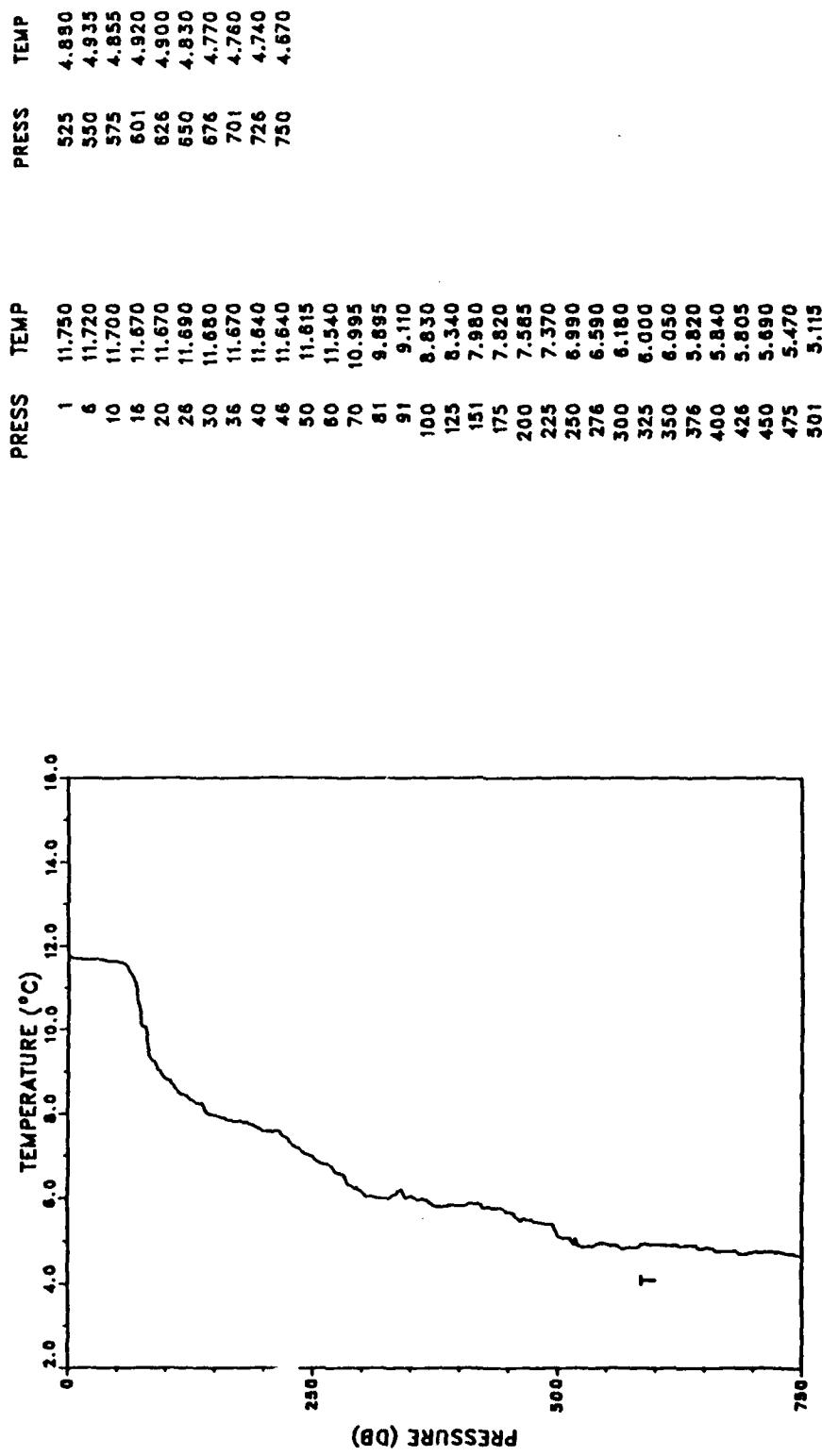
STATION: 128 LAT: 40 0.3 N LON: 124 52.1 W
DATE: 3/24/87 TIME: 0111Z

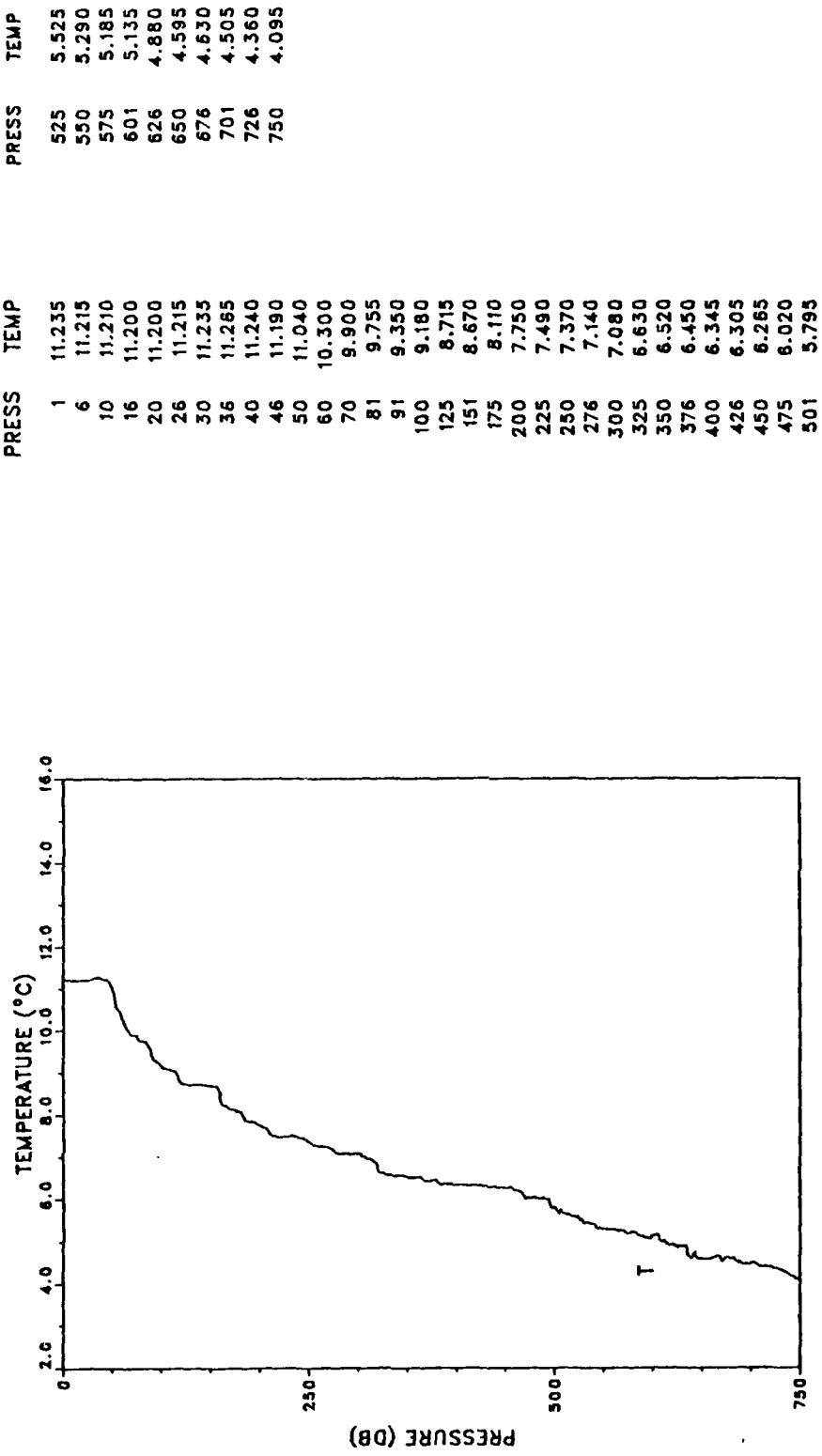


STATION: 760 LAT: 39 59.9 N LON: 125 5.6 W
DATE: 3/24/87 TIME: 0248Z

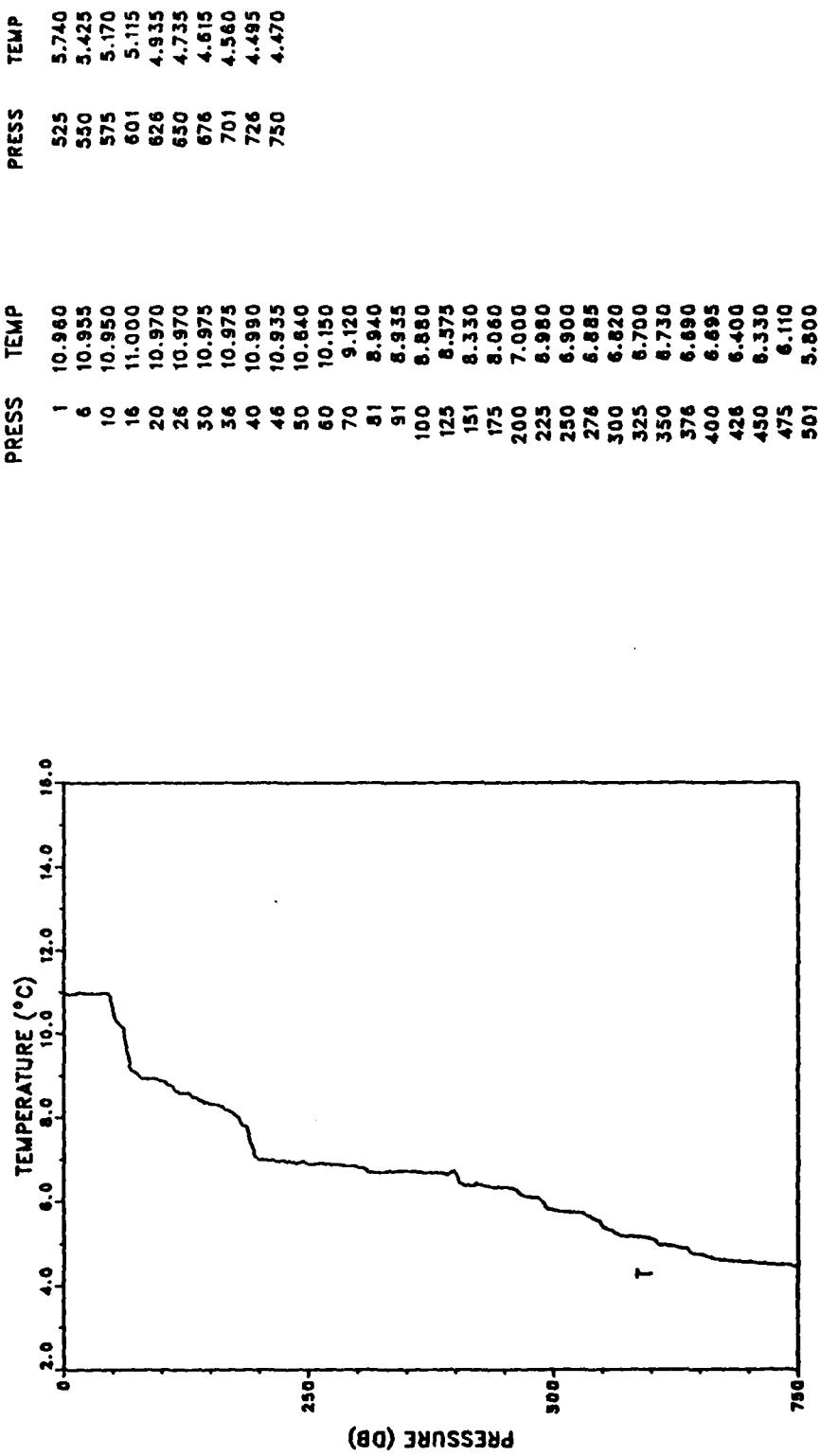


STATION: 129 LAT: 40 5.7 N LON: 124 56.0 W
DATE: 3/24/87 TIME: 0348Z

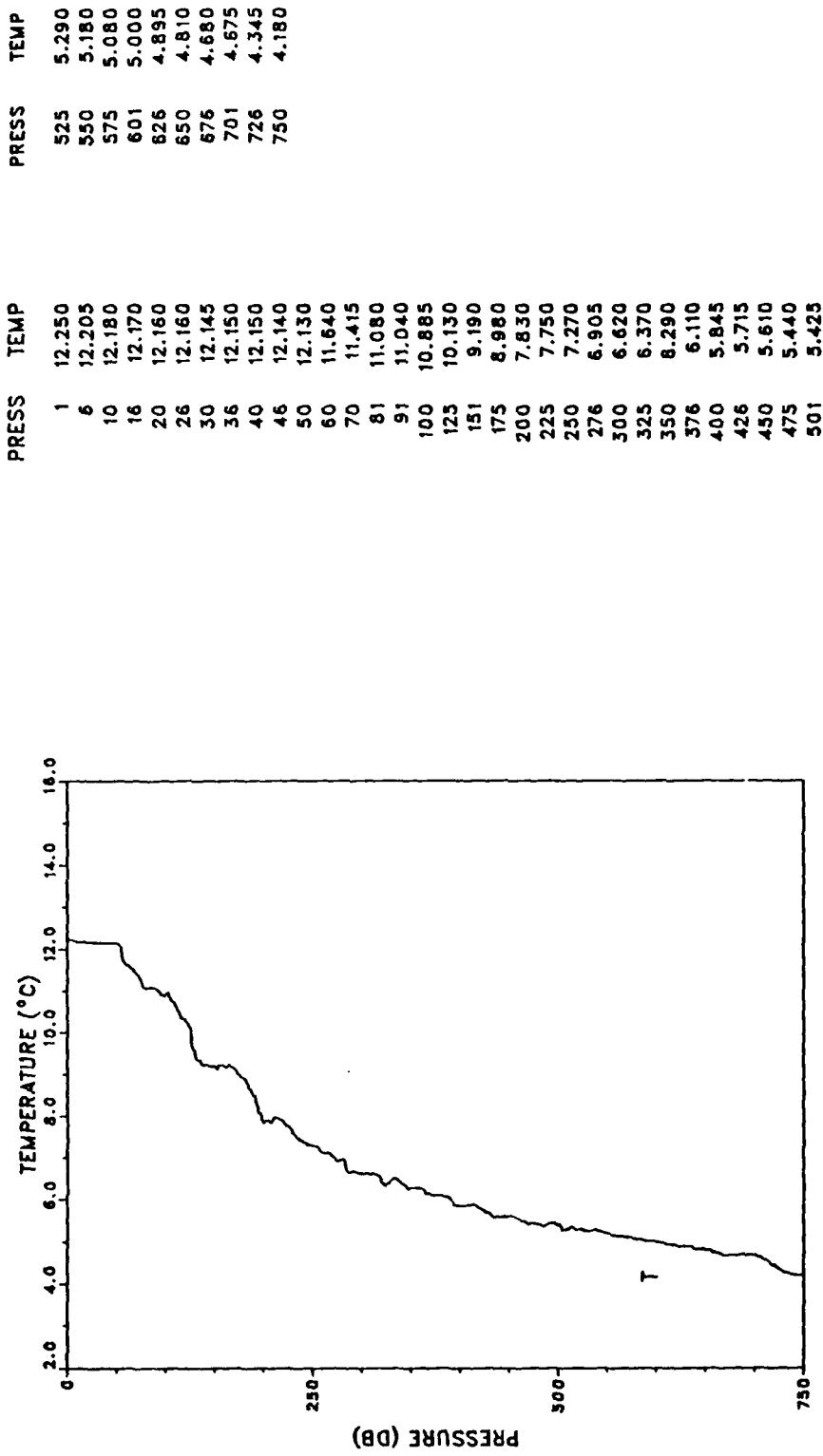




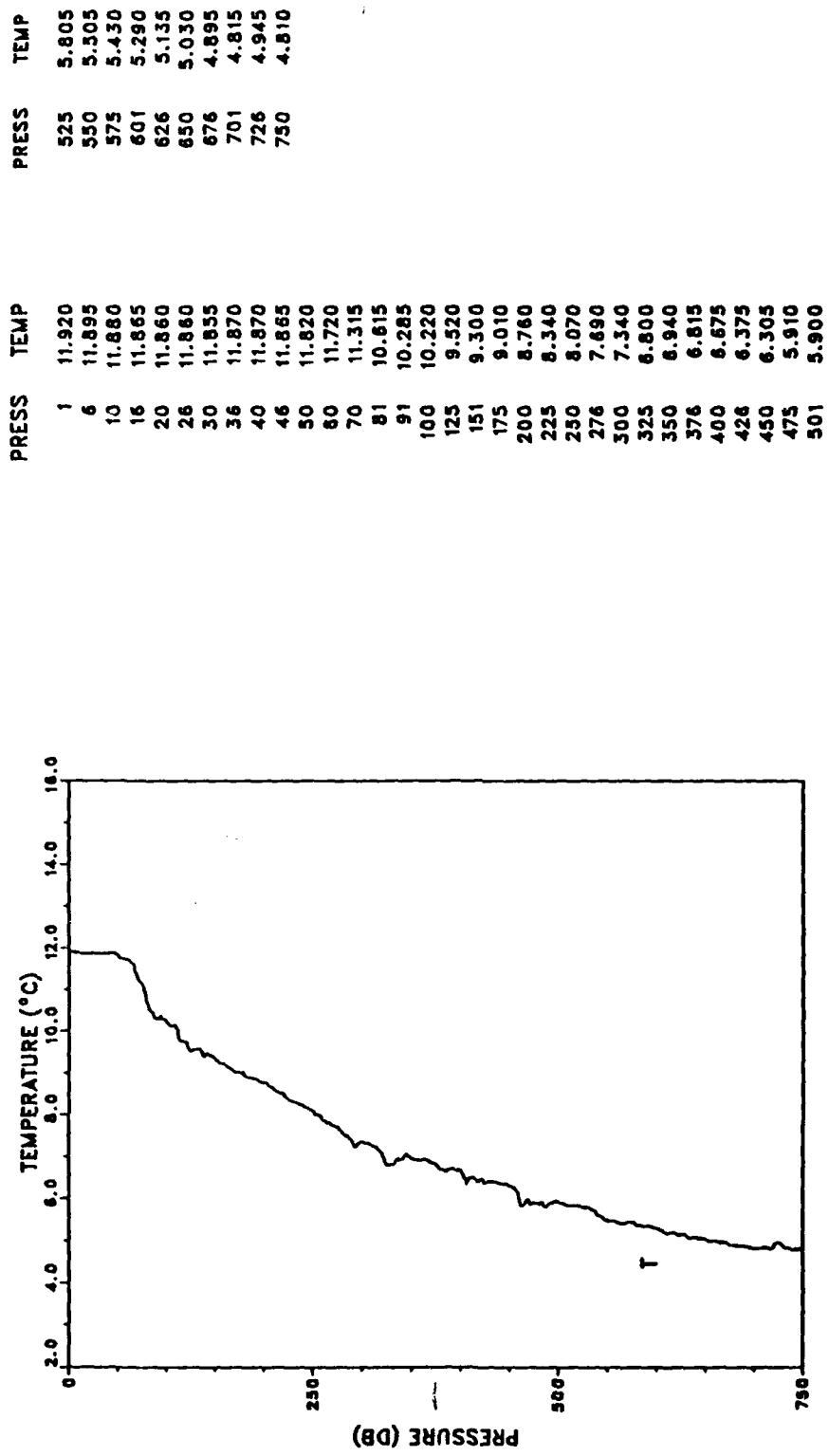
STATION:131 LAT:40 18.3 N LON:124 38.9 W
DATE: 3/24/87 TIME: 0541Z



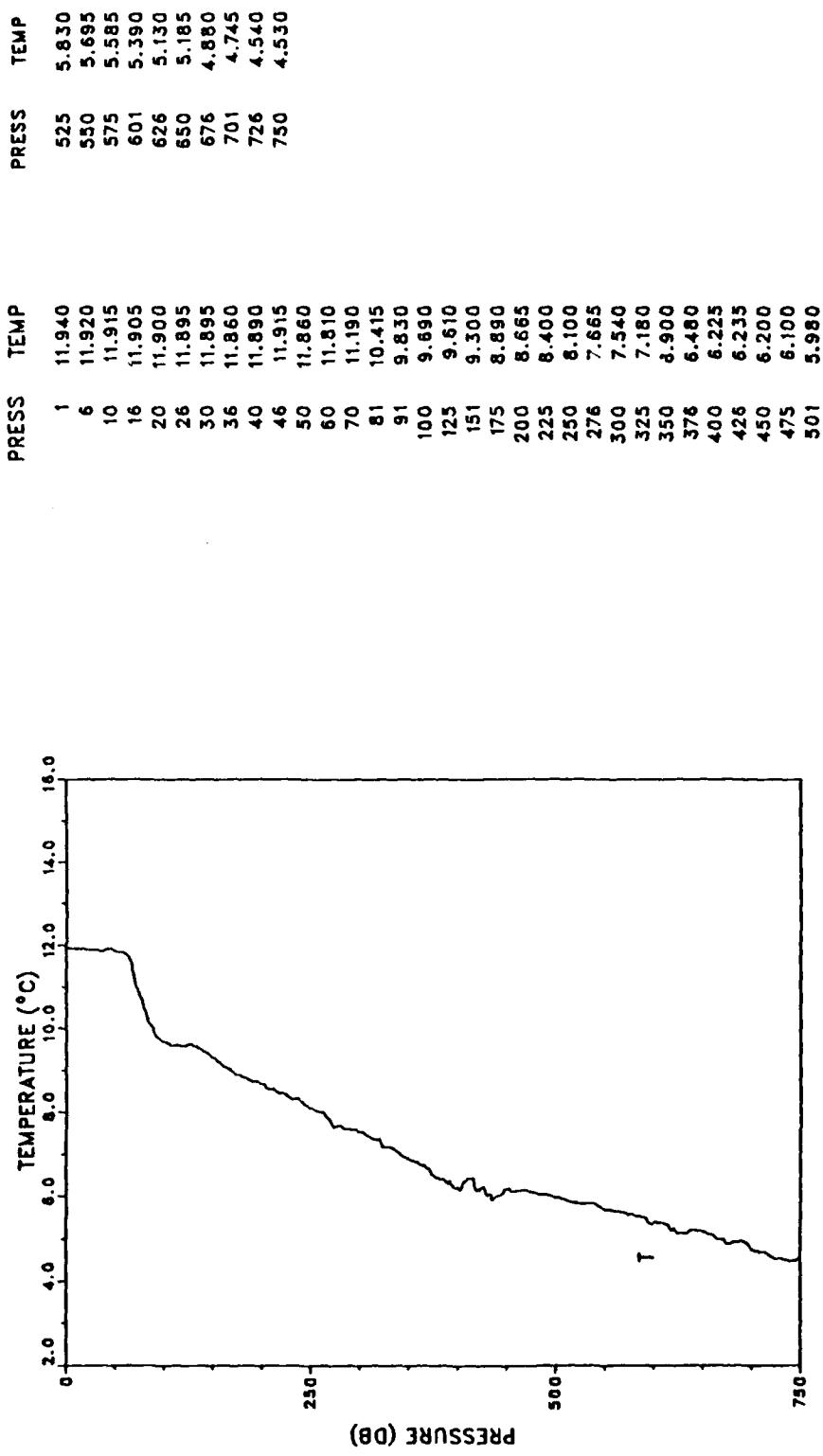
STATION: 770 LAT: 40 21.8 N LON: 124 34.6 W
 DATE: 3/24/87 TIME: 0612Z



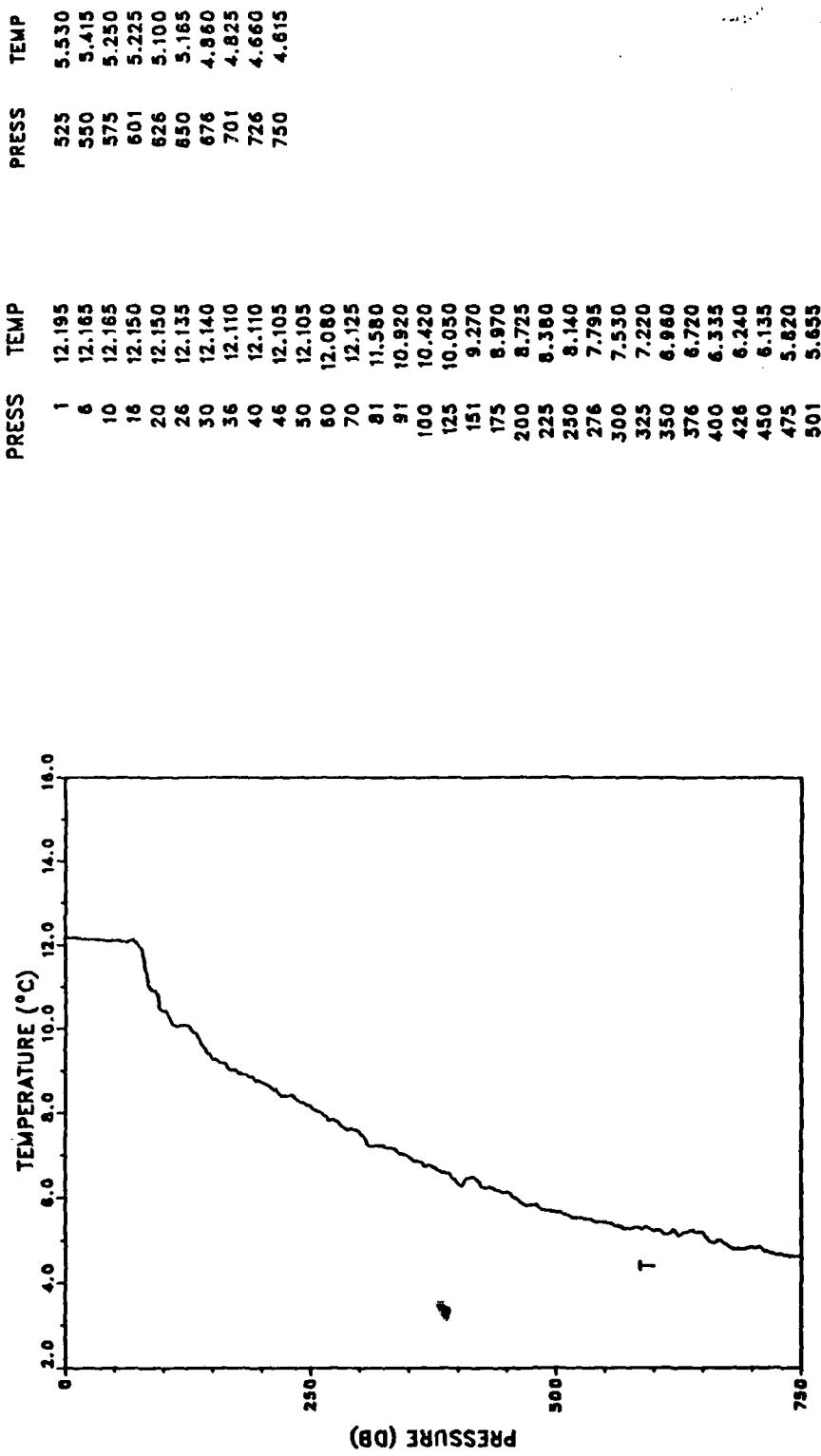
STATION: 950 LAT: 39 59.9 N LON: 125 28.2 W
 DATE: 3/25/87 TIME: 1748Z



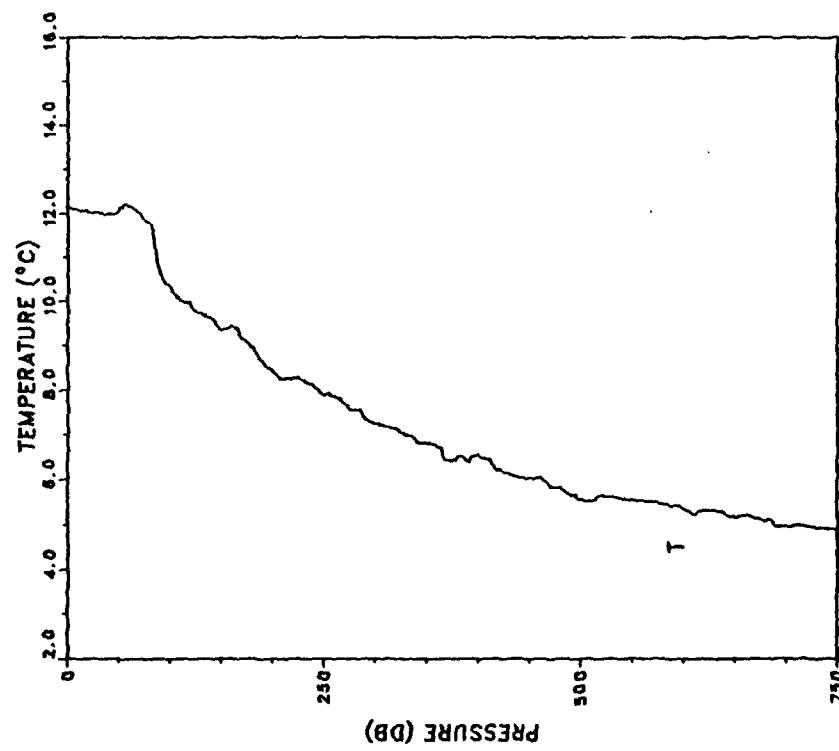
STATION: 949 LAT: 39 53.2 N LON: 125 24.7 W
DATE: 3/25/87 TIME: 1830Z



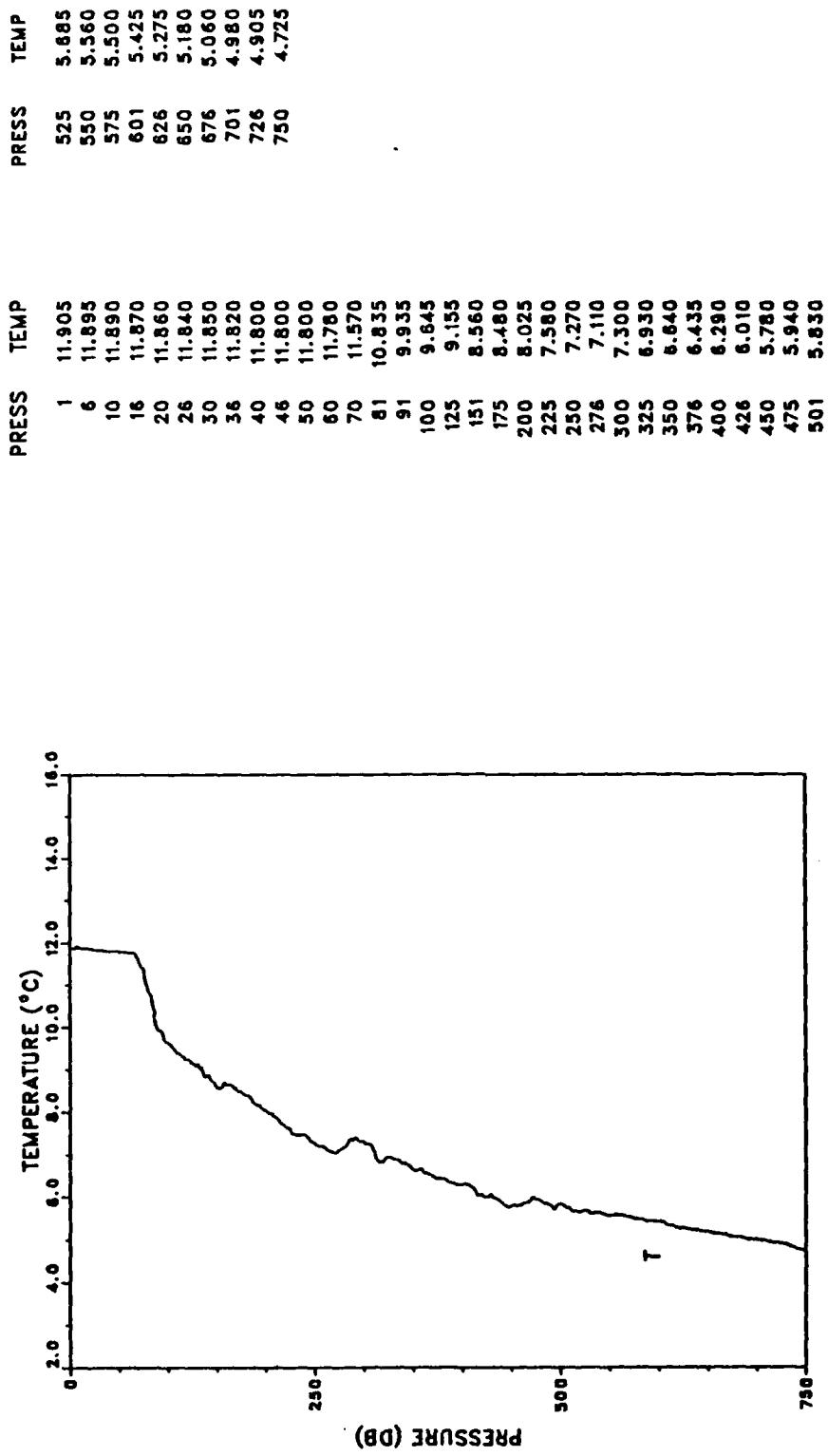
STATION: 948 LAT: 39 46.3 N LON: 125 19.6 W
 DATE: 3/25/87 TIME: 1911Z

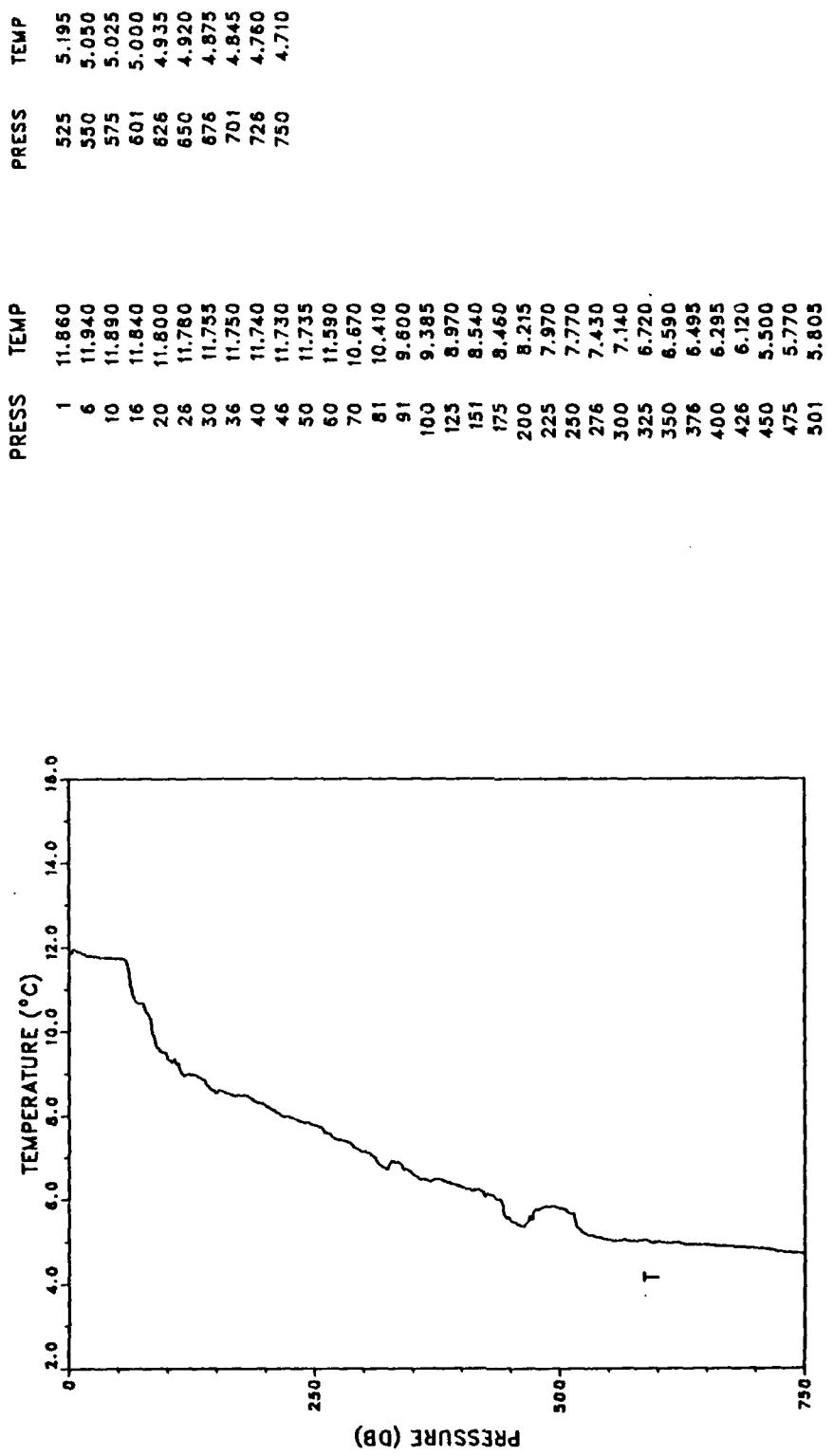


PRESS	TEMP	PRESS	TEMP
1	12.145	525	5.620
6	12.095	550	5.540
10	12.085	575	5.485
16	12.050	601	5.330
20	12.030	626	5.305
26	12.015	650	5.170
30	12.005	676	5.100
36	11.980	701	4.955
40	11.980	726	4.940
46	11.980	750	4.875
50	12.040		
60	12.180		
70	12.010		
81	11.760		
91	10.615		
100	10.320		
125	9.745		
151	9.360		
175	9.070		
200	8.410		
225	8.270		
250	7.880		
276	7.555		
300	7.240		
325	7.060		
350	6.800		
376	6.410		
400	6.540		
426	6.150		
450	6.020		
475	5.820		
501	5.545		

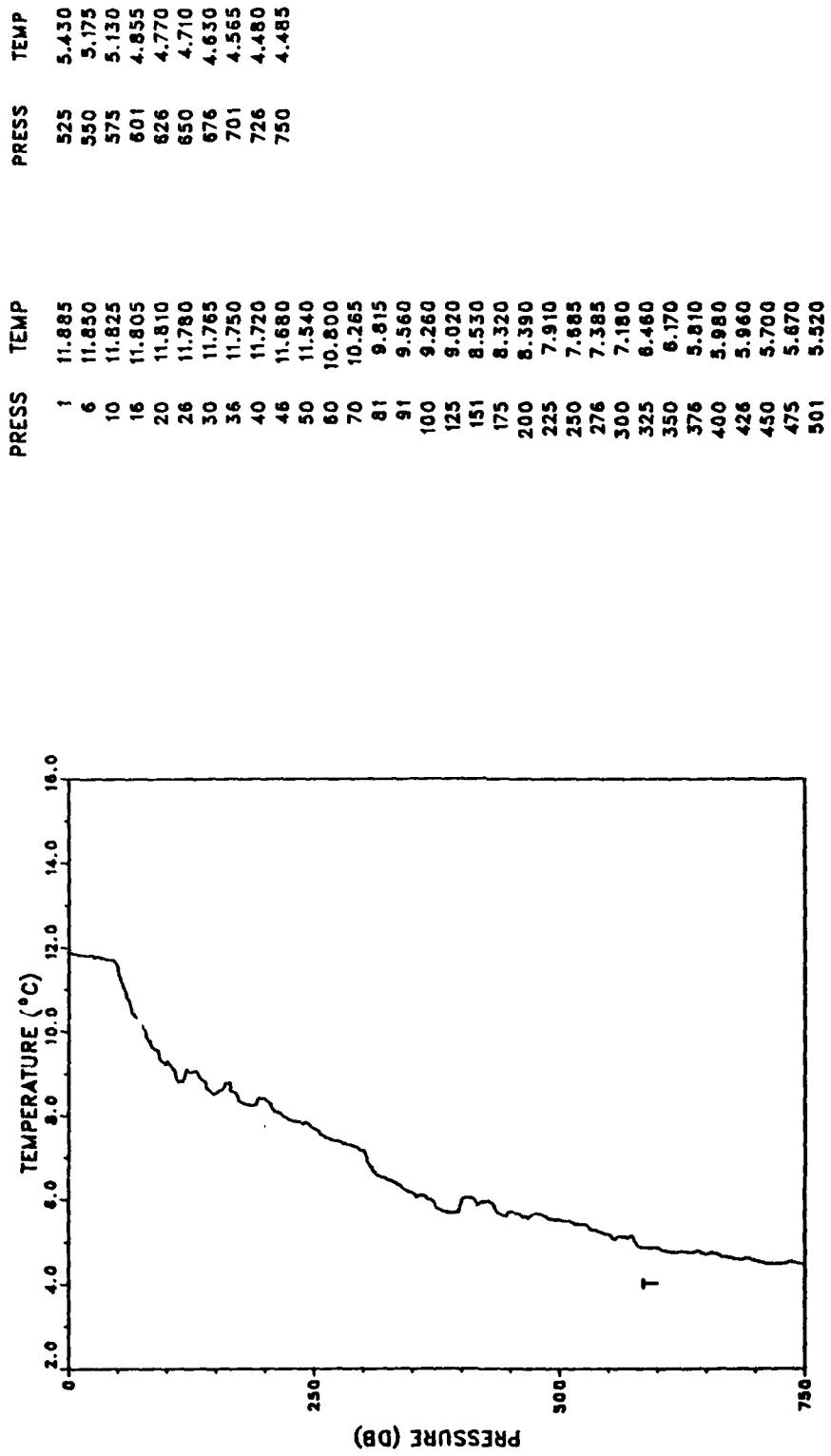


STATION: 946 LAT: 39 32.5 N LON: 125 8.6 W
DATE: 3/25/87 TIME: 2041Z

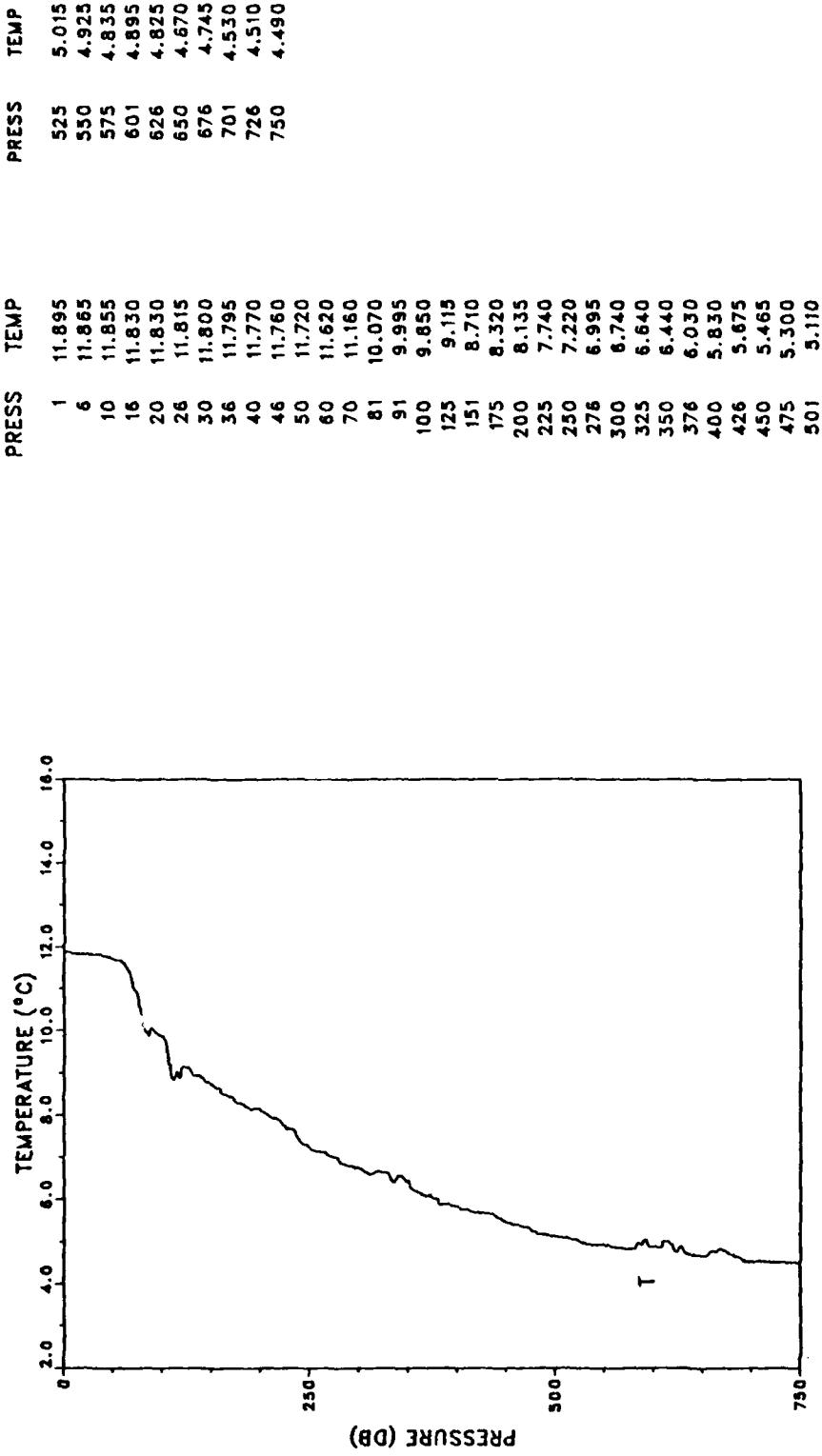




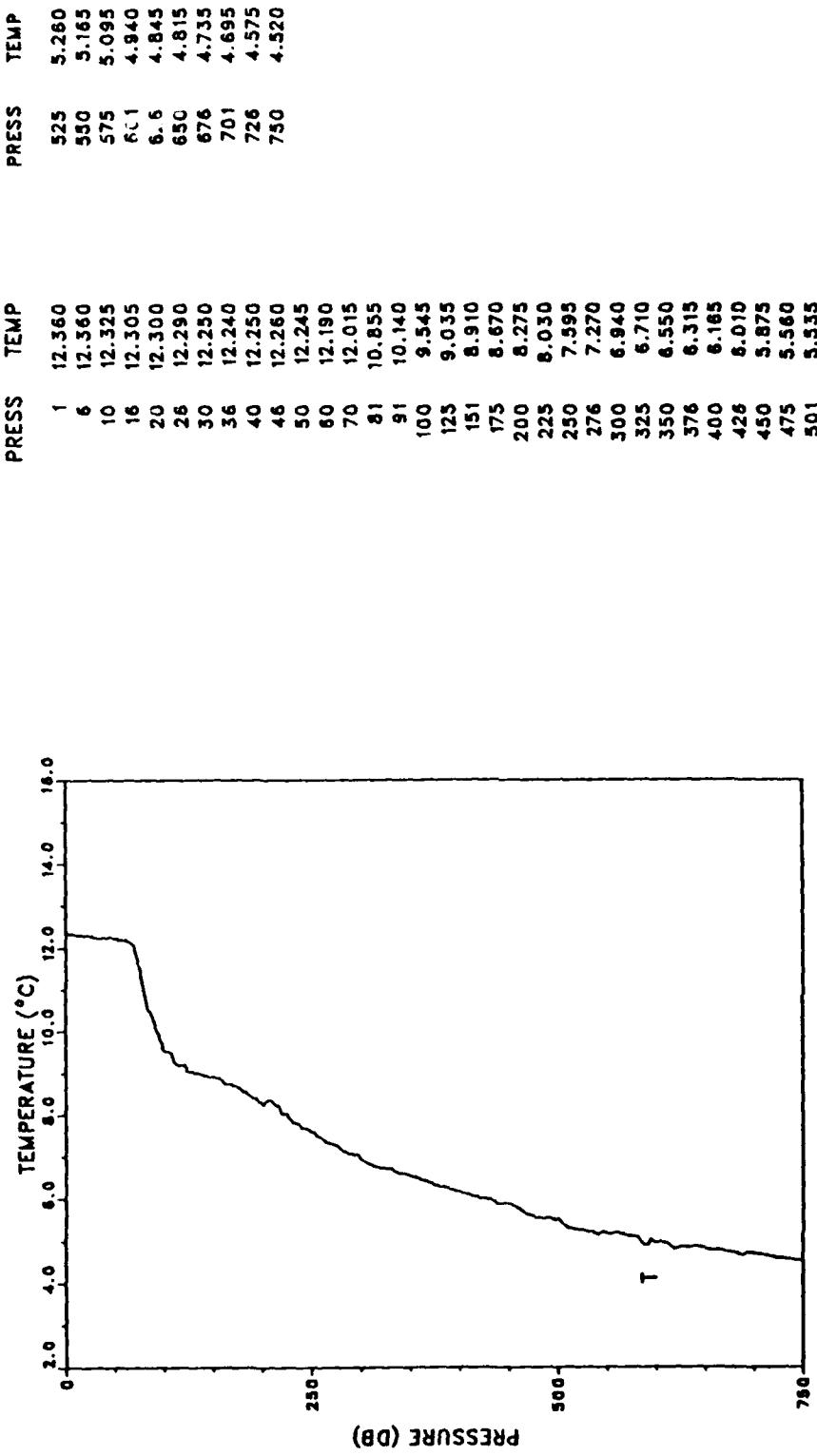
STATION: 944 LAT: 39 17.3 N LON: 124 58.4 W
 DATE: 3/25/87 TIME: 2211Z



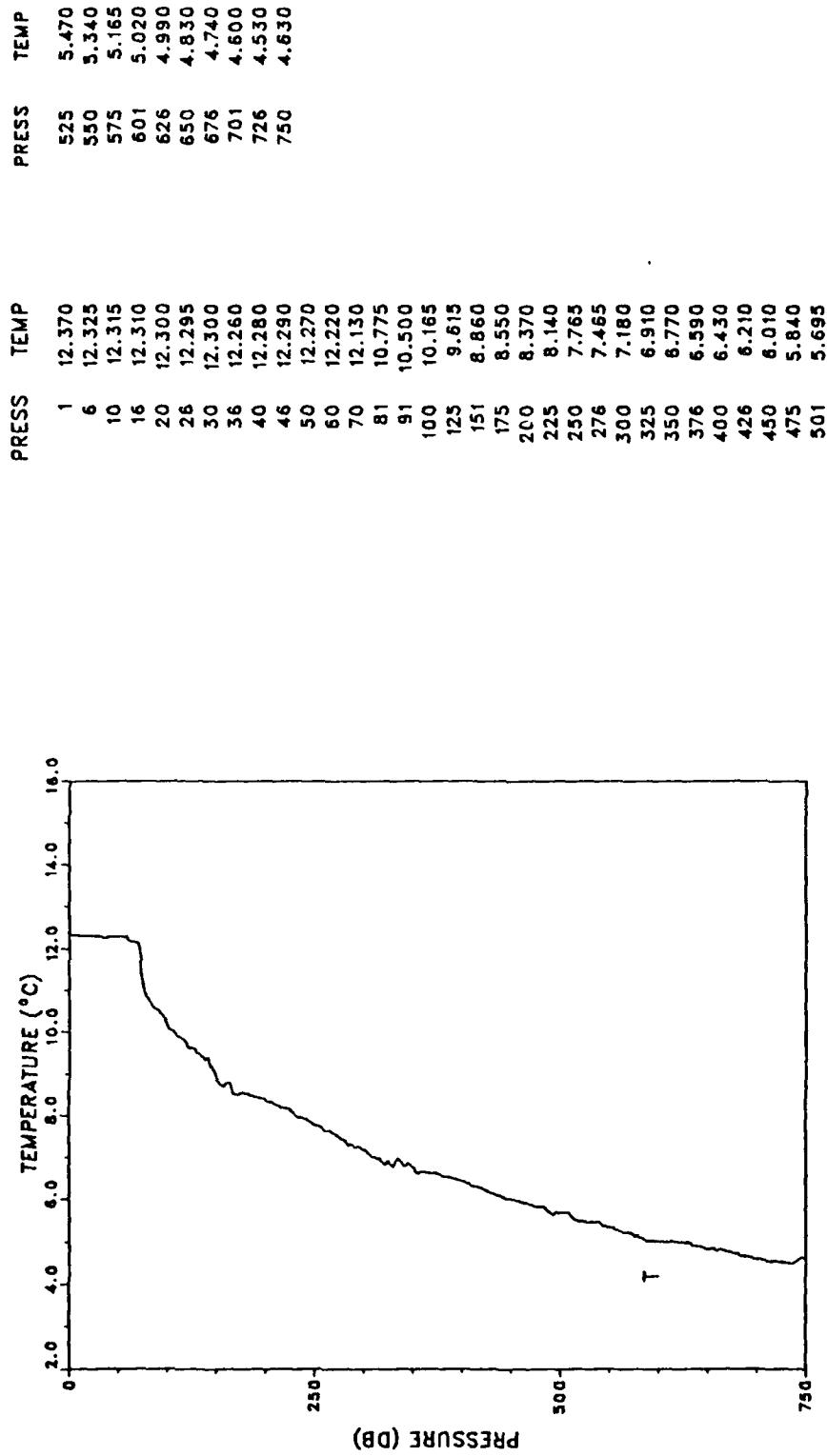
STATION: 943 LAT: 39 11.2 N LON: 124 53.8 W
DATE: 3/25/87 TIME: 2253Z



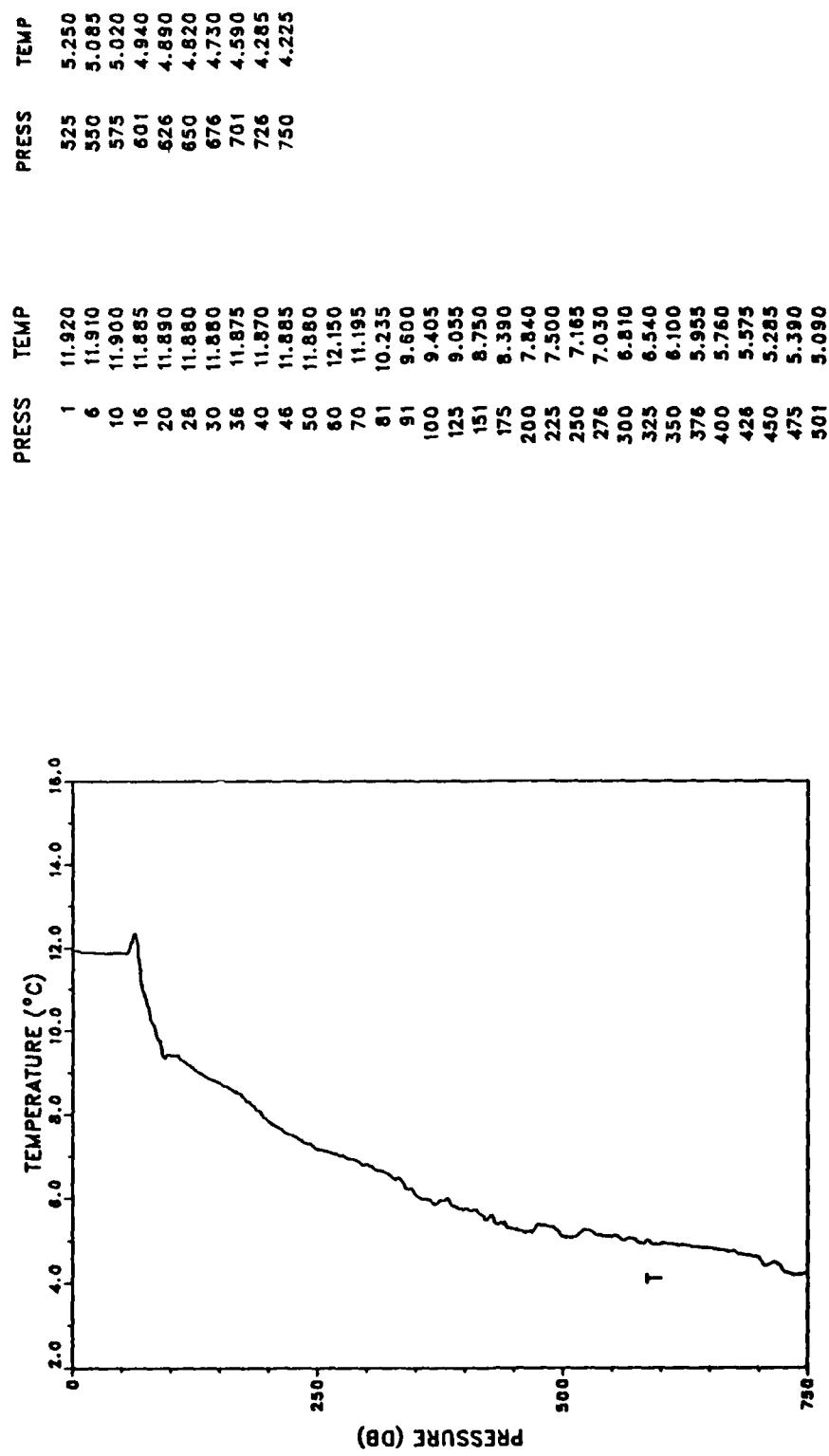
STATION: 942 LAT: 39 3.2 N LON: 124 47.9 W
 DATE: 3/25/87 TIME: 2341Z



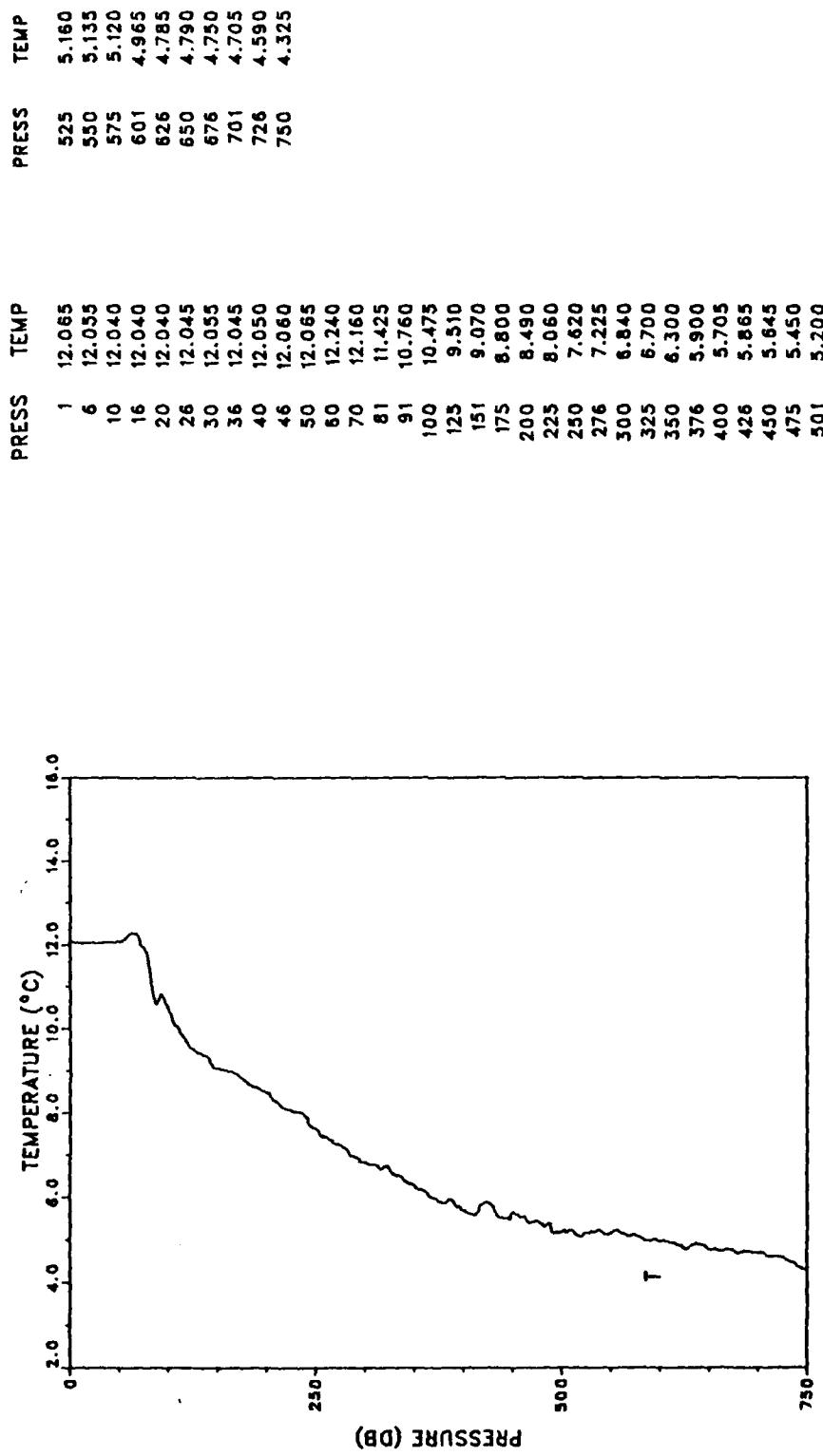
STATION: 941 LAT: 38 57.1 N LON: 124 44.8 W
DATE: 3/26/87 TIME: 0023Z



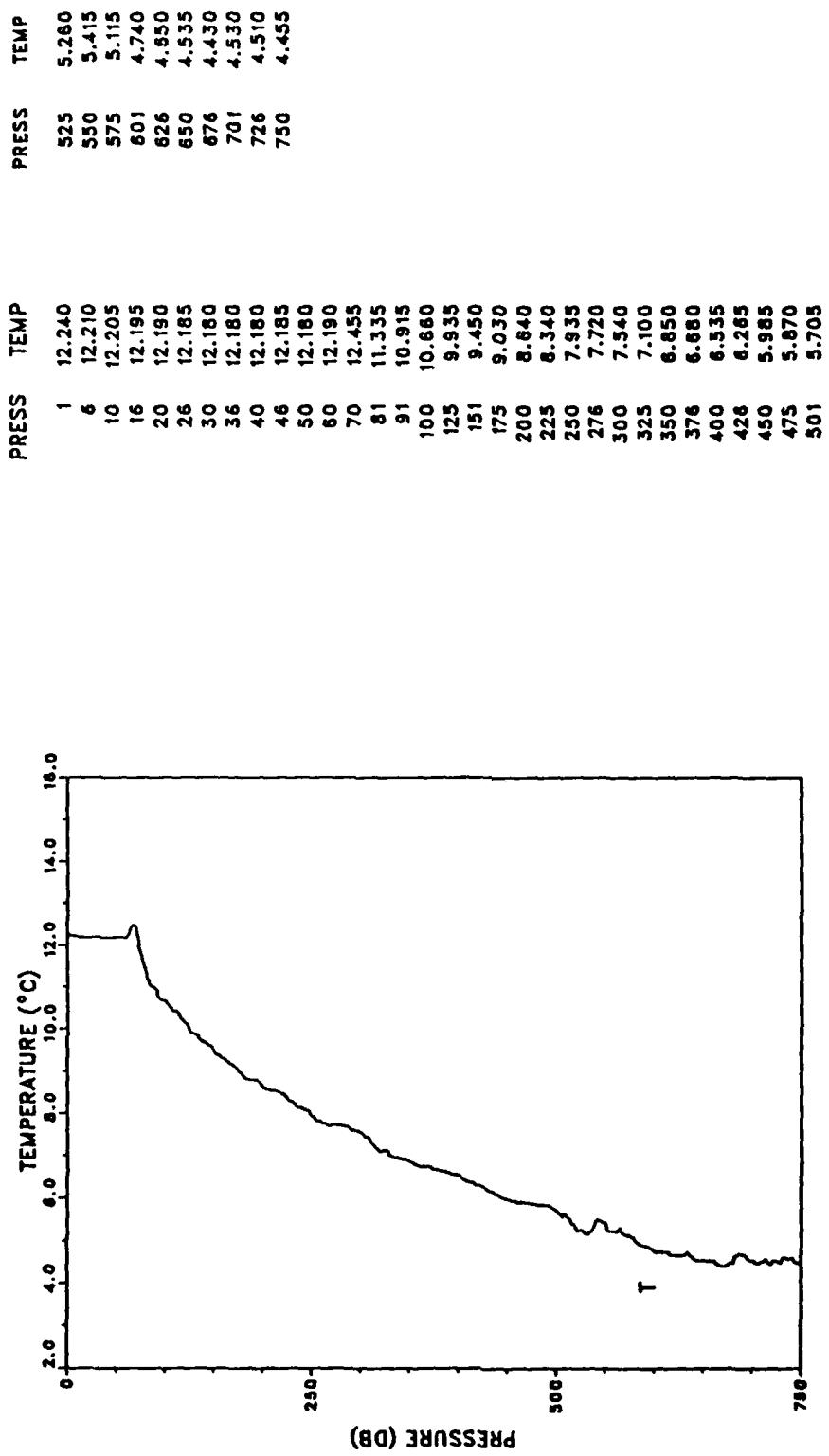
STATION: 911 LAT: 38 49.8 N LON: 124 40.3 W
 DATE: 3/26/87 TIME: 0106Z

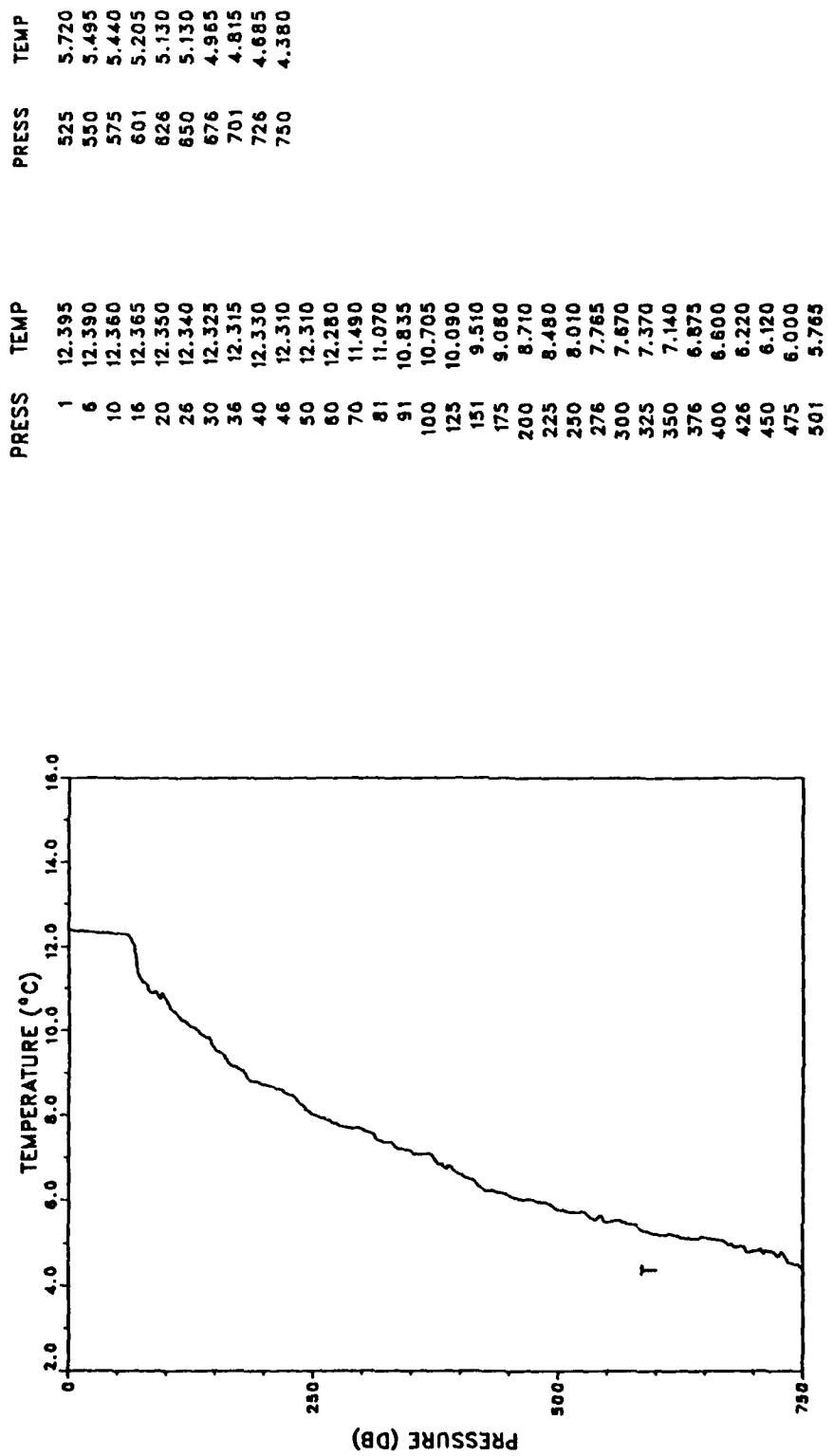


STATION: 910 LAT: 38 43.1 N LON: 124 35.1 W
DATE: 3/26/87 TIME: 0153Z

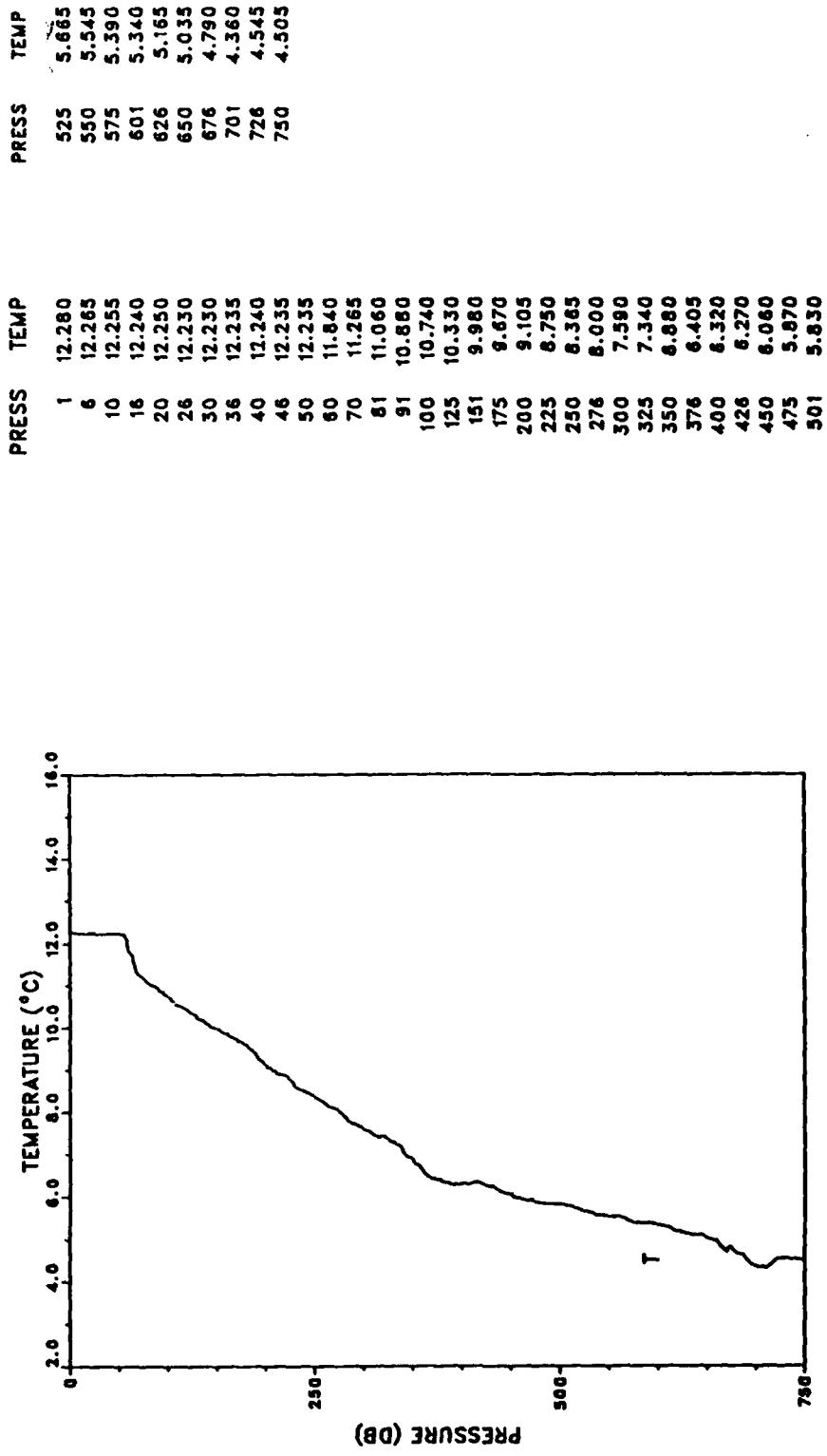


STATION: 909 LAT: 38 35.9 N LON: 124 30.2 W
 DATE: 3/26/87 TIME: 0236Z



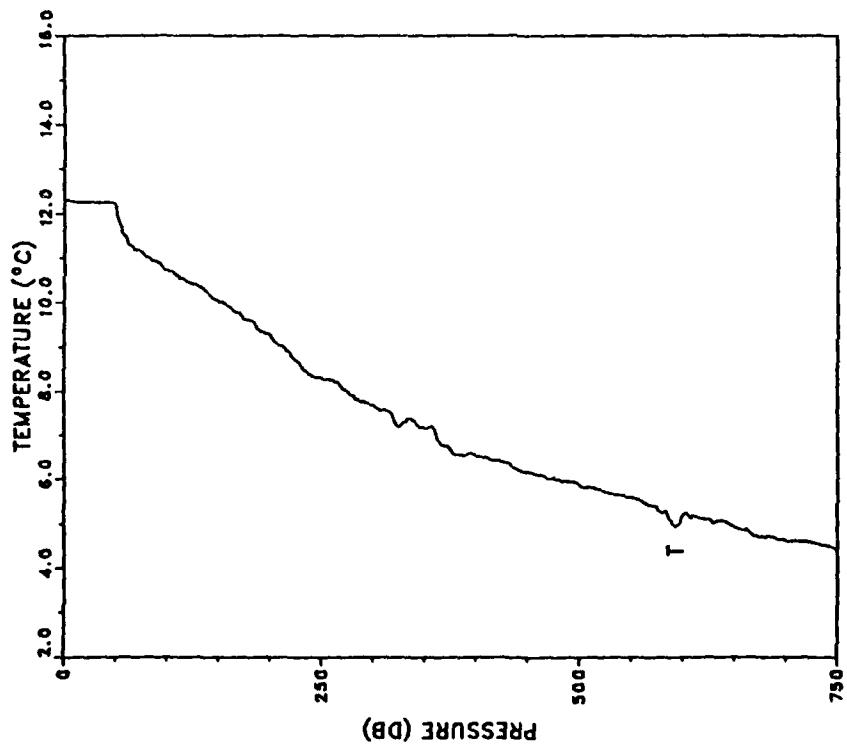


STATION: 907 LAT: 38 21.6 N LON: 124 20.8 W
DATE: 3/26/87 TIME: 0417Z

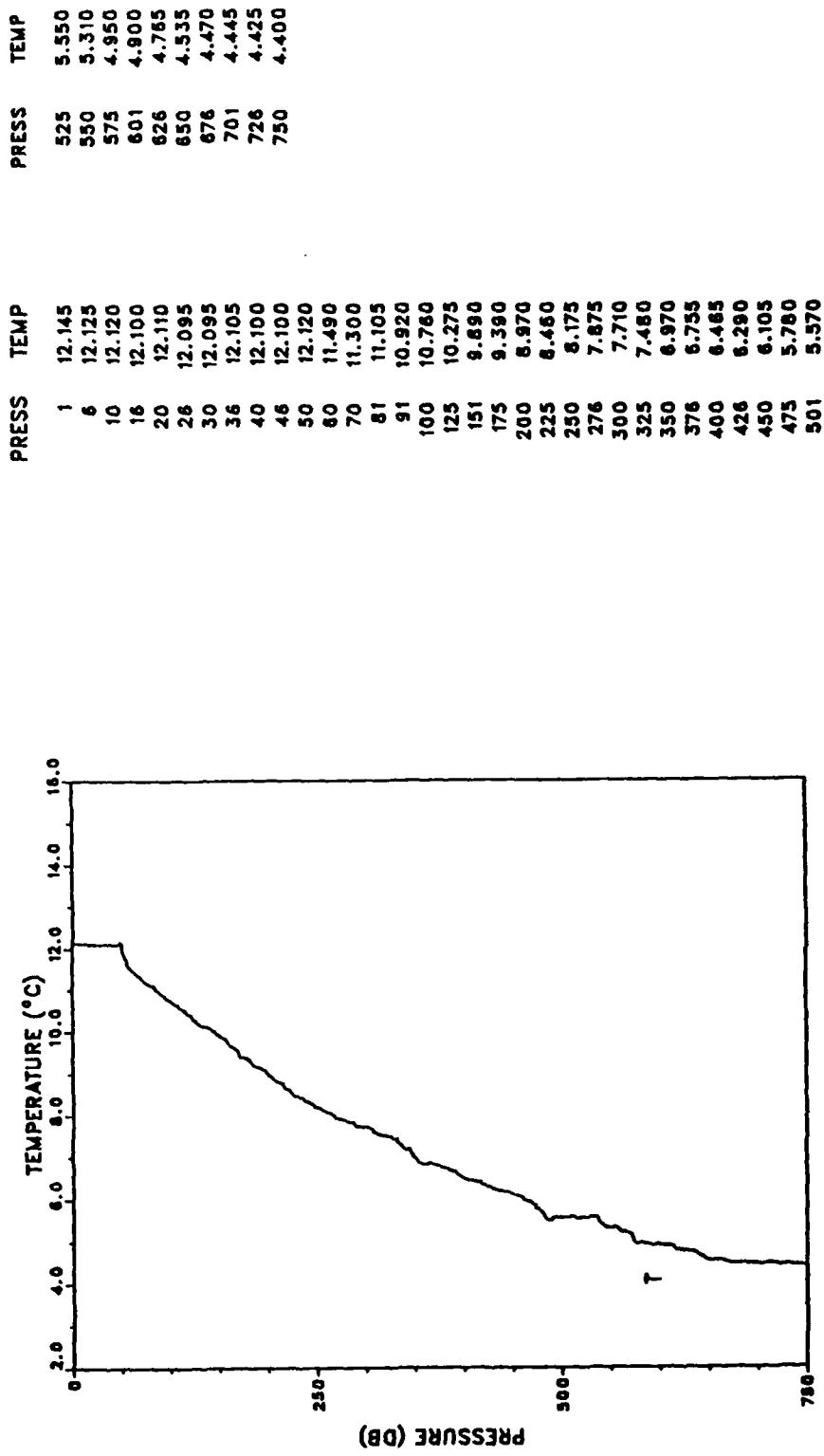


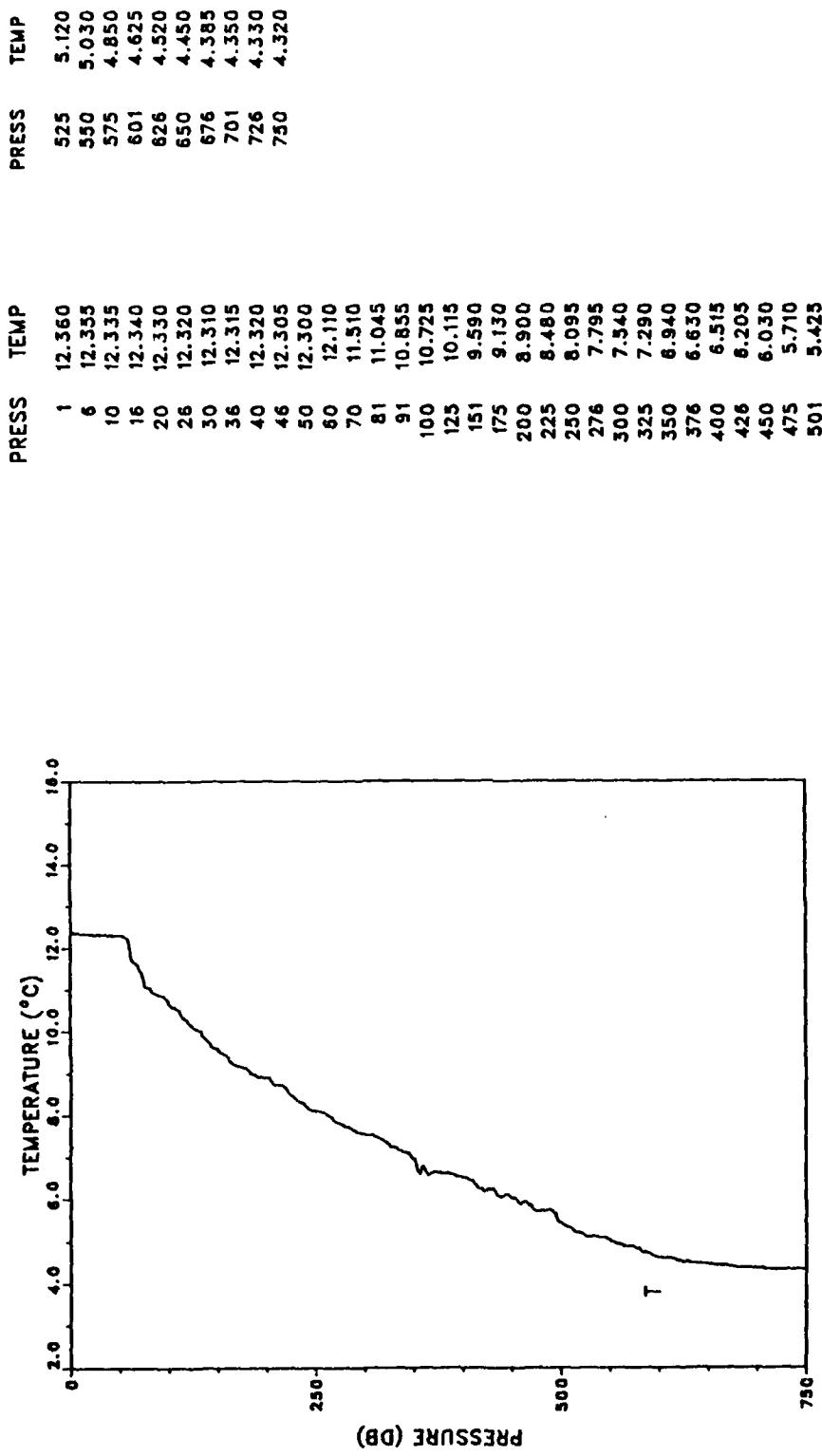
STATION: 906 LAT: 38 14.5 N LON: 124 15.6 W
 DATE: 3/26/87 TIME: 0453Z

PRESS	TEMP	PRESS	TEMP
1	12.300	525	5.720
6	12.280	550	5.595
10	12.270	575	5.385
16	12.260	601	5.220
20	12.250	626	5.110
26	12.245	650	4.940
30	12.260	676	4.710
36	12.245	701	4.625
40	12.240	726	4.585
46	12.230	750	4.455
50	12.160		
60	11.490		
70	11.170		
81	11.020		
91	10.900		
100	10.720		
125	10.410		
151	10.010		
175	9.620		
200	9.270		
225	8.890		
250	8.290		
276	7.985		
300	7.680		
325	7.200		
350	7.160		
376	6.640		
400	6.520		
426	6.385		
450	6.175		
475	6.040		
501	5.850		

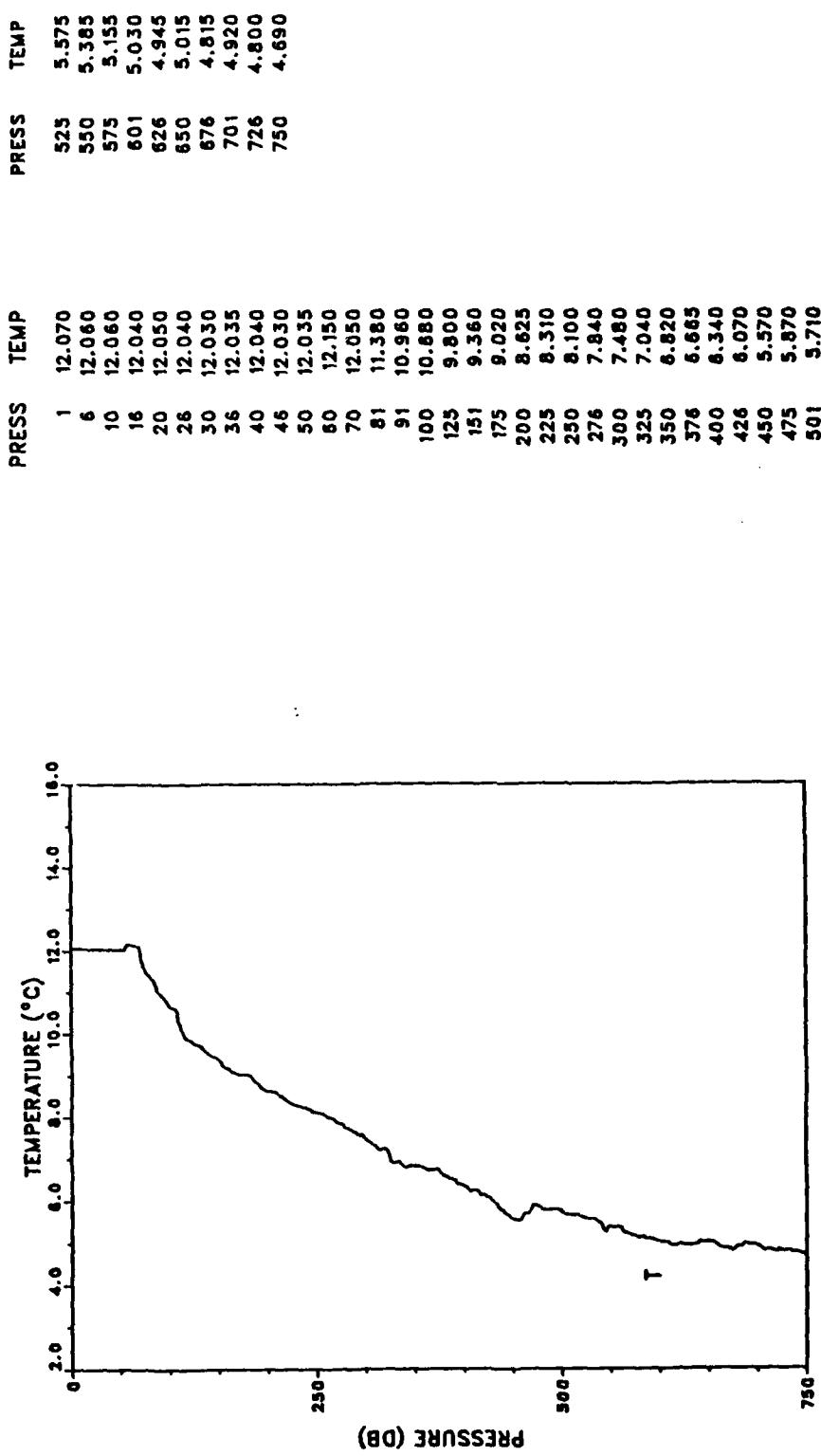


STATION: 905 LAT: 38 6.6 N LON: 124 10.8 W
DATE: 3/26/87 TIME: 0541Z



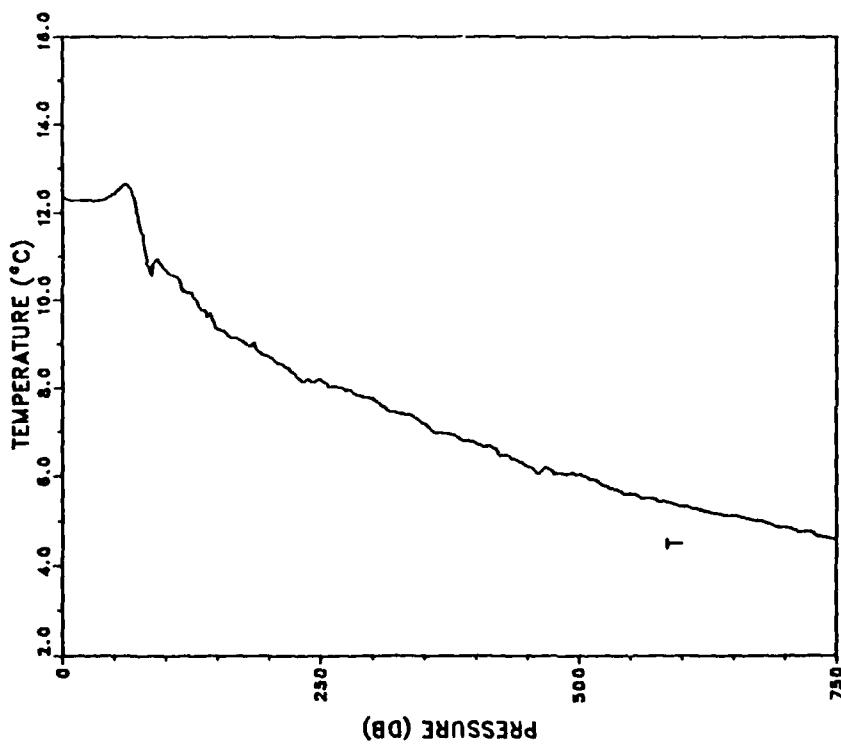


STATION: 903 LAT: 37 53.1 N LON: 124 2.3 W
DATE: 3/26/87 TIME: 0706Z



STATION: 902 LAT: 37 46.4 N LON: 123 58.3 W
DATE: 3/26/87 TIME: 0748Z

PRESS	TEMP	PRESS	TEMP
1	12.325	525	5.800
6	12.305	550	5.615
10	12.290	575	5.495
16	12.285	601	5.330
20	12.290	626	5.215
26	12.270	650	5.130
30	12.265	676	5.015
36	12.290	701	4.870
40	12.300	726	4.760
46	12.375	750	4.620
50	12.415		
60	12.640		
70	12.260		
81	10.985		
91	10.950		
100	10.680		
125	10.170		
151	9.130		
175	9.050		
200	8.705		
225	8.320		
250	8.195		
276	7.955		
300	7.760		
325	7.430		
350	7.200		
376	6.955		
400	6.740		
426	6.485		
450	6.225		
475	6.120		
501	6.035		



STATION: 901 LAT: 37 38.3 N LON: 123 52.8 W
DATE: 3/26/87 TIME: 0841Z

REFERENCES

Lewis, E. L. and R. G. Perkin, 1981. The Practical Salinity Scale 1978:
conversion of existing data. *Deep Sea Res.*, 28A, 307-328.

UNESCO, 1987. International Oceanographic Tables, Vol. 4, National Institute
of Oceanography of Great Britain; and UNESCO, Paris.

INITIAL DISTRIBUTION LIST

1.	Naval Postgraduate School Department of Oceanography Monterey, CA 93943	
	Prof. Curtis Collins	1
	Dr. Steven R. Ramp	1
	Dr. Mary L. Batten	1
	Dr. David C. Smith, IV	1
	Mr. Timothy P. Stanton	1
	Ms. Arlene A. Bird	1
	Mr. Paul Jessen	1
		30
2.	Office of Naval Research (ONR) 800 N. Quincy St. Arlington, VA 22217	
	Dr. Alan Brandt, Code 1122CS	1
	Dr. Eric Hartwig	1
	Dr. David Evans, Code 1122PO	1
	Dr. Ann Bucklin	1
3.	Institute for Naval Oceanography Bldg 1100 Room 311 NSTL, MS 39529	
	Dr. Christopher N.K. Mooers	1
	LCDR J. Edward Johnson, USN	1
4.	College of Oceanography Oregon State University Corvallis, OR 97331	
	Dr. Robert L. Smith	1
	Dr. Adriana Huyer	1
	Dr. P. Michael Kosro	1
	Dr. Mark R. Abbott	1
	Dr. John S. Allen	1
	Dr. Tim Cowles	1
	Dr. David Kadco	1
	Dr. Ted Strub	1
5.	Jet Propulsion Laboratory (JPL) California Institute of Technology 4800 Oak Grove Road Pasadena, CA 91109	
	Dr. Curt Davis	1

6.	Scripps Institution of Oceanography University of California, San Diego La Jolla, CA 92093	
	Dr. Pearn P. Niiler	1
	Prof. Joe Reid	1
	Dr. Tom Hayward	1
	Dr. Nan Bray	1
7.	Woods Hole Oceanographic Institution Department of Physical Oceanography Woods Hole, MA 02543	
	Dr. Kenneth H. Brink	2
	Dr. Robert C. Beardsley	1
8.	School of Oceanography University of Washington Seattle, WA 98195	
	Dr. Barbara Hickey	1
9.	University of Southern California Los Angeles, CA 90089	
	Dr. Burton H. Jones	1
	Dr. Libe Washburn	1
10.	Defense Technical Information Center Cameron Station Alexandria, VA 22314	2
11.	Dudley Knox Library Code 0142 Naval Postgraduate School Monterey, CA 93943	2
12.	Research Administration (Code 012) Naval Postgraduate School Monterey, CA 93943	1
13.	Monterey Bay Aquarium Research Institute 160 Central Ave Pacific Grove, CA 93950	
	Dr. Richard Barber	1
	Dr. Francisco Chavez	1
14.	Department of Meteorology Naval Postgraduate School Monterey, CA 93943	
	Dr. Robert L. Haney	1

15. Department of Oceanography
Texas A & M University
College Station, TX 77843

Dr. Eileen Hoffman 1
Dr. David Brooks 1

16. EG & G Oceanographic Services
77 Rumford Ave
Waltham, MA 02154

Dr. Bruce Magnell 1

17. NASA/Goddard Space Flight Center
Laboratory for Oceans
Greenbelt, MD 20771

Dr. Michelle Rienecker 1

18. Moss Landing Marine Laboratory
Moss Landing, CA 95039

Dr. John Martin 1

19. Fleet Numerical Oceanography Center
Monterey, CA 93943

Dr. Doug McLain 1

20. National Oceanographic Data Center
National Oceanic & Atmospheric Administration
La Jolla, CA 92093

Mr. Nelson Ross 1